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BALTIMORE, MARCH 8, 1906.

Mr. John H. Phillips, manager Interstate Realty Co., Memphis, Tenn., writes to the MANUFACTURERS' RECORD as follows:

Of all the magazines and journals that come to our office we find the MANUFACTURERS' RECORD the most invaluable and interesting, and we could ill-afford to be without your excellent publication. The small amount of advertising we have done with you has netted us more results than many times the amount in other journals. We expect to be frequent contributors to your advertising columns during the next 12 months.

SOUTHERN FORESTRY.

The conference last week at Charlotte, N. C., primarily for the purpose of creating a greater and more practical interest in the proposed national forest reserve in the Southern Appalachians, is calculated to emphasize the necessity for care and proper handling of the forests throughout the South. Mr. Gifford Pinchot, chief forester of the United States, and an enthusiast in his important field, sounded the keynote of the situation in asserting that the Appalachians, sheltering, as they do, the springs of great rivers flowing in several directions through the South, are the headway for countless possible enterprises, which, however, are threatened by the inroads which are being made upon the forests. The preservation of the forests is necessary to the maintenance of a steady flow in the streams, preventing on the one hand disastrous floods in wet spells and on the other low water in the dry seasons. Moreover, these Southern streams are coming more and more into use as sources of power for industries through electrical development. Millions of dollars have already been spent in the utilization of vast water-powers, and the expenditure of other millions is

planned. Should the flow of the rivers be diminished or become extensively variable much of the time, the money and the energy spent upon the means for the utilization of the water-power will have been wasted. Such a result may surely be expected unless proper and prompt steps be taken to preserve the shelters of the headwaters of the rivers. The most feasible preventative of what might easily become a far-reaching disaster is the establishment under national auspices of the Appalachian forest reserve.

The movement to that end has a substantial sympathy in Alabama, where about a year ago the Commercial Club of Montgomery took steps to organize opinion in that State that would compel action looking to the preservation of its forests. The Alabama Commercial and Industrial Association, representing the business bodies of the State, has now a standing committee on forest preservation, and at the recent meeting of the American Forestry Association the secretary of the Alabama body, Mr. Leslie L. Gilbert, presented a few facts showing the necessity for definite action in the premises. He is naturally proud of Alabama's industrial achievements, but he knows that they are only the promise of things that are yet to be done. He looks to electricity generated from the streams as an important element in the future development of the State, but he contends that the forests should be properly conserved as safeguards of the water-power. His position is that the matter should be taken in hand at once, and that the policy of locking the barn-door after the horse has been stolen should be avoided. What is true of Alabama is true of Virginia, West Virginia, the Carolinas, Georgia, Tennessee, Kentucky and other Southern States, most of them directly interested in the preservation of the Appalachian forests. They are looking to Congress to acquire the needed territory and to provide for its care for the benefit of the people of the whole country.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 82, 83 and 84.

MERIDIAN.

Sympathy of the country has gone out this week to Meridian, Miss., where 26 lives were lost and about \$1,500,000 of property was destroyed in a tornado which was as abnormal for that part of the South as it was fatal in its effects. The thriving center of industry in Mississippi which has made notable progress in the past five or six years was badly crippled by the visitation. Measures for its relief have been prompt, and it is certain that the stout hearts of its people have not been appalled by the disaster, and though the loss of life will mean sad memories, the people of the aggressive little city may be expected to recover shortly from the material loss and make Meridian greater than ever.

FOLLY IN THE SIXTEENTH AMENDMENT.

If a sixteenth amendment of the Constitution of the United States shall ever be ratified it will, in all probability, be a crystallization of the philanthropists dominating the figment of the moment known as public opinion. In spite of obvious facts, the last two amendments seem to be generally held as precedents for experimentation in constitution-tinkering, and scarcely any additional one urged has been free from the theory that it is safe and wise to embody in the fundamental law of the country any emotion that may sway the crowd to a clamor vociferous enough to be dignified by the name of public sentiment. Of course, such a theory contravenes the conception of the Constitution as the assurance of orderly government, and merely extends into the constitutional field the practice too often prevalent in the legislative, law-making by public clamor. But such fine-spun and well-tested principles, safeguarding the community and the individual, even the individual who is able to see only a point at a time, have no weight with the elements incapable of applying experience and fundamental truth to the solution of problems, but guided solely by their own ephemeral sensations. The latest manifestation of this malady is in the form of a resolution introduced into the House of Representatives at Washington, by request, looking to a constitutional amendment preventing anyone from owning more than \$10,000,000. Possession of such an amount is held by the concocter of the amendment as "an offense against public policy, simple justice, vital religion and common sense," and, therefore, he would provide that—

No citizen nor resident nor investor in any or all States, Territories or District comprising the United States shall be permitted to possess, in any or all kinds of property, an aggregate value of more than \$10,000,000, which sum shall be the limit of private property in or for any individual, joint individual, guardian, trustee, agent or other form or device of private-estate ownership or reserved for each inheritor or legatee. And whenever or wherever such aforesaid private ownership, or holding, or trusteeship, or reserving shall be found to exceed, in amount of property concerned, the limit above named, the excess shall all be condemned, whether or not as a public nuisance, a public folly or a public peril, and be accordingly forfeited into the United States treasury. And the States, and so forth, shall, each and all, enforce this amendment by necessary or penal legislation, failing which, in any instance, Congress shall so enforce it.

Why the designer selected \$10,000,000 as the limit, why he did not make it \$1,000,000 or \$100,000, is not apparent. Why he would not propose an amendment to the Constitution prohibiting anybody from accumulating private property and authorizing the State to confiscate all such property now enjoyed by any individual, is hard to understand. Nevertheless, it may be questioned whether he has merited the rebuke which the New York *Times* administers in calling the proposed amendment "trash" and its proposer "crack-brained." The characterizations may

be accurate, but it is unfair to single out one lone individual for their application. For, to be crack-brained one must differ mentally from a considerable mass of his fellows, and for a document to be trash it must in essence be radically astray from the normal. Such, however, is not the case with this amendment. It is simply one expression of a notion that private morality, personal religion and public ethics may be propagated by law. This notion is cherished consciously or unwittingly nourished by several thousand men and women of the country who would promptly and vigorously resent the imputation that they are crack-brained, and that the means for carrying on their propaganda is trash. Earnestly seeking the betterment of society, wishing to leave nothing undone toward that end, clear-minded as to ethics but confused as to economics, these men and women are easily misled by self-evolved saviors of society—usually salaried—who deliberately play upon the loftiest sentiments and stop at no project, however radical. Indeed, the vast majority of these saviors of society are not even conservative enough to forward their reforms by way of a constitutional amendment. That is too slow and too uncertain a process. It would give time for some thinking to be done, and the propagation by law of morality, religion and ethics is not a matter for thought. They would jam the thing through, Constitution or no Constitution, and if such an old-fashioned and slow thing as a court, unswayed by public clamor, should find that the method of reform did not measure up to the constitutional rule, they would try it again on another tack equally regardless of the Constitution and of the fundamentals of Law.

Hence there should be a revision of the estimate of the man who would limit by the Constitution ownership of private property to \$10,000,000, or there must be a united campaign against the hundreds of "reformers" who in one way and another would create artificial clogs for individual initiative and aspiration. A common point for such a union of effort might be found at once in opposition to the so-called Hepburn railroad-rate bill, which, if enacted and recognized as law, would be a precedent making unnecessary any amendment to the Constitution for the prevention of an individual accumulation of property beyond an amount which the crowd might be able to fix by legislation, and which any crowd large enough might change whenever it saw fit.

RAILWAY MOTOR CARS IN DEMAND.

Notwithstanding the widespread interest awakened by the invention and manufacture of gasoline-operated railroad cars, the production of a type of these vehicles to enjoy general recognition for practicality and efficiency has not yet been attained. Several patterns are in use in this country and in England, and, although current reports in

dicate that both builders and users are satisfied by the performances of these machines, certain features connected with their operation have occasioned criticism, and besides the results obtained also met with comment favorable in the main, but not unmixed with unfavorable opinion.

In all probability at least some one of these different types will, if necessary, be duly perfected and appreciated, or if already perfect, it will likewise in time win a secure place in the field of transportation work. Promoters of both street and interurban railways in localities which might afford doubtful means of support for electric roads are already talking of plans to operate their projected lines with gasoline cars, or maybe they anticipate steam-propelled vehicles of light pattern, all because of a desire to avoid the building of costly power plants and the erection of overhead equipment, which would represent much more capital upon which interest would have to be earned.

While "gasoline motor cars" is the phrase by which these new railway coaches are popularly known, the use of electricity generated on each separate vehicle is proposed by one inventor, if not by others. At the works of a prominent car-building company of this country a railroad motor car was lately completed which employs gasoline only for the purpose of operating an engine to drive a generator that, in turn, supplies electricity to motors on the axles of the car, which rests on two four-wheeled trucks. At times when the motors do not require much, if any, electricity, the surplus power from the dynamo goes into a storage battery carried under the middle of the car, forming a reserve supply that is drawn upon as conditions may demand—for instance, when high speeds are desired or when the car is surmounting a grade. This notable motor car has started upon a trip from Philadelphia to San Francisco, and will in due season be seen during its journey on portions of lines which penetrate the South, including the St. Louis & San Francisco Railroad, the Chicago, Rock Island & Pacific Railway and the Southern Pacific Railway. A feature of its machinery, which may be of particular interest to some persons, is that either gasoline, coal oil, crude petroleum or alcohol may be used for fuel in the engine, the vaporizer being susceptible of adjustment to suit either fluid. The car was tested before it started on its long journey, and it is said that several others are also being built in Philadelphia for use on the Missouri & Kansas Interurban Railway between Kansas City and Olathe, Kan. Each is more than 50 feet long. This will make four railroads in the United States using the new separate motor cars, the others being the Union Pacific (and also the Southern Pacific in the South) and the Delaware & Hudson.

Undoubtedly the success of gasoline-operated automobiles was mainly responsible for the direction of inventive talent towards the production of gasoline or gasoline-electric motor cars for use on railroads. The vehicle here described is of the last-named type, and it is said that its method of making and using electricity is thoroughly economical, there being no waste of current. Already it has excited much favorable remark, but by the time its trip to the Pacific coast is completed its practicability is expected to be fully demonstrated. Meanwhile gasoline motor cars are in use, one between Houston and Galveston, Texas (as noted some time ago), and their success is said to

be proven. But the public's choice between the two systems, if both be practical, is yet to be made. Besides, there is the possibility of developing a practical and light steam motor car, something far in advance of the old-fashioned "dummy," which might take the lead in popular favor.

It is safe to assert that whenever a type of railroad motor car shall prove itself equally efficient to an electric trolley car, and correspondingly cheap to maintain and operate, it will speedily be made a marketable proposition by some of our manufacturers, and the extent of our railway mileage will be considerably quickened soon thereafter. The demand for such a vehicle is apparent in many parts of the country, and particularly in the South.

Mr. S. M. Browning, vice-president of the Ohio Valley Pulley Works, Maysville, Ky., writes to the MANUFACTURERS' RECORD as follows:

We regard your paper as the most valuable trade publication which comes to our office, and we trust you will keep up your good work in promoting the development of the South and Southern interests for many years to come.

TO CONSERVE THE PINES.

An idea of the demand for resin-producing trees, together with their rapidly-increasing value in South Georgia, may be gained from the following incident: A turpentine producer located about 10 miles from Waycross decided to sell a few thousand boxes. He advertised his wants. Very soon he received an offer, and at the rate of \$75 per 1000 boxes. This he considered high, and therefore satisfactory, since all he could get for 1000 boxes less than four years ago was \$18, and at the most \$20. He was about to accept the offer, when along came another of \$85; then another of \$85, and still another at \$95. The bids reached \$110, and he finally closed a bargain at the rate of \$125 per 1000 boxes. Such incidents are said to be not uncommon in the turpentine belt. Yet in the face of such extraordinary advances in the value of resin-producing trees, and within a few miles of the location where \$125 per 1000 boxes was obtained, there is a pinery in which a heavy percentage of trees were blown down and rendered useless as resin producers by a recent storm. In this particular piece of timber land 15 per cent. of the trees were destroyed in this manner. The cause was manifest in the fact that every one of the fallen pine trees had been bled too early. The diameter of the trunks varied but from four to six and seven inches. The wound at the base of the young and undeveloped trees weakened that particular part, so that the windstorm swept over and through the timber, these particular trees were unable to withstand the storm and breaking off sharpest at the axed point, their immature life was ended. Here is a case which calls for legal control. It should be adjudged a punishable offence to apply the axe to a young and undeveloped tree.

In Southern Georgia, in the neighborhood of Valdosta, the lessee of a pine-tract, on having his attention called to the fact that on his leased property were a number of young trees whose trunks at the point where the hatchet was applied for bleeding purposes were under five inches in diameter, said: "You know that boxes have gone up in value from \$20 a few years ago to \$150. I have merely leased this timber land. I desire to get all I can out of it while the lease period lasts. I may sell my interest before the expiration of that period, in which event the more boxes I have the greater will be my returns. Sure enough, if the land were my own property I would not attempt to

bleed these young trees, but you see I am differently situated." This was the reason given for destroying or cutting short the life of the young fine trees. This man, for the benefit of a little temporary profit, deprives those who are to come after him of the advantages which he now enjoys. The United States is the only civilized country where such happenings could be tolerated.

INDUSTRIAL LEXINGTON.

In preparation for an active campaign for the location of new industries at Lexington, Ky., a committee of the Chamber of Commerce of that city has inspected the possible sites which may be placed at the disposal of the body. The trip of inspection brought out the fact that individual landowners and the railroad companies will co-operate heartily with the Chamber of Commerce in its campaign. The representative of one company owning a long narrow strip of land said that sites would be sold to new enterprises at what the land cost his company. The Lexington & Eastern Railway will give sites to industries likely to furnish freight, such as furniture factories, tanneries, planing mills or other woodworking establishments, and the Louisville & Nashville and the Chesapeake & Ohio have also promised substantial aid. Lexington has already large and flourishing industrial establishments. But in a rapidly-developing section of the State it has room for more, and its Chamber of Commerce has taken the proper step toward increasing their numbers.

MARYLAND STATISTICS.

In its fourteenth annual report the Bureau of Statistics and Information of Maryland has presented results of probably the best work it has ever done. The report gives a mass of actual facts of value to the State and full of information for persons desiring to settle in Maryland or to make investments here. The report has some drawbacks. For example, 16 or 18 pages of it are devoted to an "investigation" designed to increase the machinery of the bureau for the furtherance of a sociological agitation with which the machinery of the State should have nothing to do. If the results of this "investigation" are of any value whatever, it is only in so far as they demonstrate the extremely slender basis for the sociological "investigation."

MILLENNIUM NOT YET.

The limit has about been reached in Massachusetts in "child-labor" laws, compulsory school attendance laws, probation officer laws and such like, and, according to a statement of the Massachusetts Prison Association, the number of juvenile offenders (between 7 and 17 years of age) arrested in Massachusetts annually is about 10,000. Sociologists of other States who would copy Massachusetts childlogy will probably be unable to perceive any cause and effect in the situation in Massachusetts, but individuals unswayed by fad-patter and sentimentality, but disinterestedly seeking the welfare of children, might do well to consider whether the average legislative body is a sure means for hastening the millennium.

A MUNICIPAL HANDBOOK.

A professional worker for municipal and civic advance emphasized in a recent magazine article the fact that too many would-be reformers in municipal politics are sadly lacking in essential facts about taxation, expenditures and the general scope of municipal activities. To be sure, too many reformers are orators, and orators have always refused to be hampered by facts; too many of them are theorists, and theorists have difficulty in digesting practical information calculated to upset

academics. But it is often difficult for the earnest student of affairs of his municipality to obtain from the mass of facts the much to be desired knowledge. In the case of Baltimore such difficulties have been removed through the publication of the "Municipal Handbook, City of Baltimore, 1906," compiled by Mr. Wilbur F. Coyle, city librarian. His experience as city librarian has shown Mr. Coyle the widespread demand for such a publication, and the zeal which has led him to make of his office a practical and valuable factor in the city government has enabled him to bring together from widely-scattered sources and to arrange in most convenient form a mass of facts, up to date and in demand, bearing upon the personnel of the various departments of the city government, the tax rates for a generation, expenditures, debts, improvements, etc. The publication is in vestpocket form, and is somewhat tentative in character, but with the proper appreciation of its value it may be expanded with profit to the community. In other ways Mr. Coyle has rendered valuable service to the city, especially in committing to permanent print many of the documentary records or ancient printed matter which are in constant demand. He is demonstrating that the city library may be made a most efficient means of keeping the world informed of the various activities of Baltimore city government.

A WOMAN IN INDUSTRY.

Perhaps the only woman in the South in active service as president of a lumber company is Mrs. Susan G. Anderson of Winchester, Ky. Her father left her a large estate, which she is managing with much skill and ability, and successfully. She has a fine income, but as she has no family, her children being grown and married, to occupy her, she has turned her attention to business and is now president of the recently organized Clairfield Lumber Co., which has secured the right to cut the choice poplar, ash, oak and other timber from a large tract of land in Claiborne county, Tennessee. In turning from a life of leisure to one of industrial activity Mrs. Anderson is setting an example that some men might profitably imitate.

THE COTTON MOVEMENT.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the first six months of the present season was 8,678,737 bales, a decrease under the same period last year of 926,014 bales; the exports were 4,639,523 bales, a decrease of 1,072,104 bales; the takings were, by Northern spinners, 1,683,572 bales, an increase of 181,527; by Southern spinners, 1,357,250 bales, an increase of 36,397 bales.

THE PITTSBURG MERGER RUMOR.

In reply to questions regarding the Pittsburg reports of another great iron and steel merger Mr. W. E. Corey, president of the United States Steel Corporation, wires the MANUFACTURERS' RECORD, "No truth in statement," and Mr. John A. Topping, president of the Republic Iron & Steel Co., wires: "In my opinion, report is nothing more than newspaper rumor and not worthy of comment."

Mr. Henry G. Bayer, 47 Barclay street, New York, is special commissioner in this country for the international exhibition of textile and allied industries, which will be held from May to October next at Tourcoing, an important textile city in France.

The 150,000 Club of Dallas, Texas, has elected Messrs. J. E. Farnsworth, president; Eli Sanger, vice-president; Joseph S. Kendall, Jr., secretary, and Elihu Sanger, treasurer.

BIG STEEL PLANT FOR CHARLESTON, W. VA.

[Special Correspondence
Manufacturers' Record.]

Charleston, W. Va., March 5.

The Baldwin Steel Co., with present works at Cold Spring-on-Hudson, New York, has just closed contracts for the location of a new plant at this place. It is the company's intention to push the construction of the new mills with the greatest possible expedition, so that the plant may be in operation by early fall. The location here will be followed by an abandonment of the plant at Cold Spring and the concentration here of the entire activities of the company.

As the location of this enterprise means the possibilities of an important development in iron and steel industries here, there is much gratification in Charleston over the coming of the steel company, and the result is directly traceable to the publicity now being given by the MANUFACTURERS' RECORD to West Virginia's advantages as a site for industrial enterprises, a personally gratifying illustration is thus freshly furnished of the value of this newspaper as a helper in the work of developing the South.

The Baldwin Steel Co. is at present working under a copartnership agreement, but it is the intention of the company to incorporate under the laws of West Virginia. In the copartnership, as at present arranged, there are four partners, consisting of Samuel W. Bowne, U. C. Brewer, C. F. Simmons and A. G. Lansing. Mr. Bowne is a man of very large means, the active head of the well-known firm of Scott & Bowne, whose Scott's Emulsion is known throughout the world. While Mr. Bowne has numerous interests outside of his main business, he has taken a very active personal interest in this steel plant and has spent more time in developing its plans than of any other. His associates in the steel company are active, energetic young business men. Mr. Brewer, who has been in charge of the works at Cold Spring, has had a business experience of seven or eight years in New York, having been for some time secretary of the old Lawrenceville Cement Co., and is still a director in the Pennsylvania Cement Co. Mr. Simmons, who is at the head of the New York office at 107 John street, was formerly of the Gorham Manufacturing Co. of New York. Mr. Lansing is a nephew of Mr. Bowne, in whose business advancement Mr. Bowne is greatly interested.

The Baldwin Steel Co. began making steel at Cold Spring in an experimental way three years ago, and in the course of the experiments developed a high-speed crucible steel that is today recognized as the standard for high-speed and heavy-duty cutting. This steel, now known to the trade as the Hudson High-Speed Steel, has, in comparative tests made during the last year in some of the largest shops in the United States, stood tests that have never been surpassed, and in most cases not equaled. The Hudson Twist Drills form one part of the company's product which has met universal approval since their first appearance on the market. Their peculiar composition makes the drilling of metals a very simple and expeditious operation. A seven-eighths-inch Hudson drill has been sent through three inches of soft steel in 26 seconds, while another drill of the same size bored 10,000 holes through cast-iron columns with a loss of less than one inch in length. These drills stand for the highest development of high-speed steel for this class of work. It has easily proved its superiority over the best English or European high-speed steels, which were first in the market in this country. The company also makes all grades of carbon tool and die steel, and a special chrome-nickel steel

for automobile crankshafts and gears, a steel which has largely been imported. This product has by repeated tests shown itself fully equal to the imported products, and on account of the tariff sells at a lower figure than the foreign brands. On account of the great growth of the automobile business in this country, a very important development of this branch of the company's business is regarded as inevitable. The product of the Baldwin Steel Co. is at present sold largely to the different railroad shops and the larger machine shops in general. The territory now being supplied is New York, Pennsylvania, New Jersey and New England. In addition to other customers, the company has also been supplying two of the government arsenals with bayonet and header die steel.

The capacity of the Cold Spring plant being inadequate to the increasing trade, all of the available space of the site occupied having been filled up and a fire last summer having furnished additional occasion for investigations as to the desirability of a new site, attention was attracted to conditions in West Virginia. Although the old plant was repaired so that business was interrupted for only about a month, the information secured about the advantages in West Virginia so impressed the company that it was determined to come to this section and build a new plant with facilities of the best, and where room for large additional development might be secured.

Mr. Brewer was moved to locate in West Virginia through the MANUFACTURERS' RECORD, of which he has been a reader for years, and after a tour of the State chose Charleston because of river navigation, competing railroads and nearby coal fields in the event that gas may ultimately play out.

A factory site consisting of 12 acres has been selected, lying along the Chesapeake & Ohio Railroad track between the railroad and the Kanawha river, something over a mile from the center of Charleston. This site is high and dry, and is very admirably adapted to the requirements. It is almost opposite the Kelly Axe Factory, and in convenience and adaptability is all that could be desired. Switching facilities will be provided, and the electric car line will be extended to the property. In the same neighborhood is the Tanners & Dyers' Extract Works, a very extensive industry of 14 years' growth, whose products are shipped to all parts of the world. The location of the steel plant at this point means an important extension of the industrial centers of this city, and with the contemplated extension of the electric car line from this point to St. Albans it is considered not unlikely that there will be an ultimate industrial development stretching practically as far as St. Albans, at which place the Coal River branch of the Chesapeake & Ohio Railroad is now under construction to the Piney Creek extension of that same road, and the Marsh Ford division of the Tidewater road is being built from St. Albans to a junction with the Deepwater-Tidewater at Surveyors Station.

After a very busy 24 hours in Charleston Mr. Bowne left for his home in New York Saturday evening. Mr. Brewer, however, is remaining on the ground to arrange the details for the immediate construction of the new plant. The buildings will be of concrete, or brick and steel construction, and the plant will consist of crucible furnaces, rolling mills, with a full complement of various sizes of steam hammers, besides necessary shears, cutting-off machines, planishers and other equipment for making different shapes of tool steel. It

is the company's intention to establish a new department for the manufacture of pick steel for mining machines in the Kanawha and New River districts. Being in a position to ship by water, the company will be able to make quick deliveries to the various operations along the Kanawha river, and a considerable business is expected to be worked up in this line.

The Kelly Axe Factory uses a large quantity of crucible edge steel at their factory, and as the Baldwin Steel Co. manufactures a grade of steel suitable for this purpose, they will be in a position to furnish this product. Should Charleston ever attract such factories as saw or file works, the company would likewise be equipped to furnish the steel required in their operations. In addition to holding their present Eastern trade, they expect to be competitors for the business of toolmakers in cities to the west of here, such as Cincinnati, Hamilton, Dayton, Springfield, Louisville, Indianapolis, Chicago, Milwaukee and St. Louis. Possibilities of great growth are contained in the situation. It is not unlikely that, in addition to supplying toolmakers in centers east and west of here, the location of the steel plant in Charleston may constitute a nucleus around which would gather numerous consumers of this kind of product. The same advantages of water and railroad transportation and cheap fuel that attracted the Baldwin Steel Co. and the Kelly Axe Factory to Charleston would apply to a large number of other industries which are users of steel, and there would be the additional advantage of quick deliveries of raw material. In addition to the advantage it will be to Charleston to have this steel company here, it will be a convenience to a great many of the steel users throughout this section, and will be especially advantageous to all Southern foundries and machine shops, as it is the first works of the kind to be established in the South.

One of the strong points of the Baldwin Steel Co. is the skill and standing of its superintendent, Chas. W. Wright, who has been one of the well-known steelmakers and managers of Pittsburg. He began his career with the Parks Steel Co., and then was manager for the Howe-Brown Company. When that company was absorbed by the Crucible Steel Company of America he was made superintendent of the Aliquippa steel plant, where he established a great reputation as a maker of the best quality of soft center plow steel. He is a thoroughly up-to-date modern steel man, who has given a great amount of study to the development of tool steel for special purposes, and he is acknowledged by the trade to be one of the most expert steelmakers in the business, either here or abroad. ALBERT PHENIS.

UNITING PUBLIC UTILITIES.

Important Moves for Industrial Development at Charleston, W. Va.

[Special Cor. Manufacturers' Record.]

Charleston, W. Va., March 5.

All of Charleston's public utilities are now in the hands of interests represented by Chilton, MacCorkle & Chilton, the widely-known attorneys of Charleston, and no less conspicuous for the important part they have taken in the development of this city and section. The latest transaction to be noted is the purchase by Mr. W. E. Chilton, on behalf of himself and powerful outside financial interests, of the entire holdings of the Kanawha Water & Light Co. These include the water-works here, electric-light plant, artificial gas plant, and the property, rights and leases of the Kanawha Gas Co., a recently-created organization which has brought in a number of fine gas wells in

Roane county and laid pipes up to the city of Charleston.

The details of the sale just announced have been in hand by Mr. Chilton and representatives of the companies interested for some weeks, but the final transfer of the properties to Mr. Chilton has only just taken place. There are yet other details of reorganization to be worked out before the final disposition of the properties is made. The exact nature of the plans of reorganization are not formulated yet, although an examination of the situation would suggest certain details of disposition as the logical course of procedure.

For instance, a working arrangement, if not consolidation of the Kanawha Gas Co.'s artificial and natural gas interests with those of the Charleston Natural Gas Co. would appear to be inevitable, if not yet an actually accomplished fact.

The Kanawha Street Railway, of which Senator W. C. Sproul of Chester, Pa., is owner, with the Chiltons and ex-Governor MacCorkle, would appear to be the legitimate heir to the electric-lighting plant of the company bought out. The street-car company at present serves a portion of the city with electric lights, and with a consolidation of interests and plants it is probable that a much improved service in this utility will be provided the city. It has already been announced by the street-car company management that the street-car service will be greatly extended. The company some time ago bought the Kanawha river bridge here, and it is the declared intention of the management to build a street-car line to the south side of the river and to the factories now in operation and under way in that vicinity, with an ultimate extension down the river as far as St. Albans. There would seem to be every assurance in the manner in which the street-car system has been improved and extended under the present ownership and in the custom of those in interest to do things on an adequate scale, that the transfer of the whole electric-lighting business of the city to this company will be of advantage to the people of Charleston.

In the same way there is every reason to believe that the new ownership of the water-works will be so strongly organized and so amply backed that a water-works system will be devised and built up in keeping with the importance and requirements of the city all Charlestonians believe this destined to become.

As to the matter of natural gas, assurances are given by interested parties that every possible inducement will be offered industries to locate here, and that contracts will be given on terms as to price and time that will be entirely satisfactory to those looking for locations in this section.

ALBERT PHENIS.

Woodward Iron Co.

An announcement of the current week indicates that another of the important industrial companies in the Birmingham district of Alabama is planning future extensions of its operations in that territory. It is that the Woodward Iron Co. of Woodward, Ala., has filed legal notice of the increase of its capital stock from \$2,000,000 to \$3,000,000, in accordance with a recent decision of the stockholders. This will be issued as 10,000 shares of the par value of \$100 each. No official statements have been made as to betterments planned, but it is reported that the present plant will be enlarged, additional furnaces be built, and possibly a pipe works or steel plant erected. It is not the company's policy to give out any information regarding its plans, but authoritative information will doubtless reach the interested public in due time. Mr. J. H. Woodward of Birmingham is president.

AMERICAN COAL FOR EUROPE.

United States Consul-General Mason at Paris, in a report bearing upon the future markets for American coal in Europe, takes the ground that in respect to quantity and quality of coal supply the advantage of North America over European countries is decisive and overwhelming, and says:

"The known coal measures of the United States render their fuel supply secure, abundant and of excellent quality for centuries to come. There are hundreds of thousands of acres of gas and coking coals of high quality in the Appalachian region, to say nothing of other fields, which have as yet been hardly scratched by the pick and drill of the miner. New coal deposits of greater or less extent and value are being discovered from year to year. With what is now known the present enormous annual output of 280,000,000 tons of bituminous coal can be maintained for hundreds of years without exhausting the available supply. In Europe, on the contrary, the years of adequate coal provision are definitely numbered. In England experts estimate the duration of the workable coal measures to be from 60 to 100 years. Germany has a somewhat longer lease of industrial life dependent on coal supply, but already the subject is so acute that a heavy contract for the delivery of German coal to France for iron and steel works is understood to have been canceled recently at heavy loss to the sellers, because, as it is definitely understood, the imperial government objected to the depletion of the national coal supply for the benefit of neighboring countries. France has native coal for a generation or more, but the mines are deepening, the cost of production is gradually increasing, and economists are looking with growing apprehension to the future. Twenty-five or at most 30 years hence the question of an adequate fuel supply will be a serious problem for France.

"The city of Paris, with a population of about 2,708,000, consumed in 1903 about 1,632,500 tons of coal and coke, including 661,850 tons which were used for the manufacture of gas. The octroi duty on coal introduced into the city is \$1.38 per ton, but it is provided by a law enacted in 1873 that manufacturers whose works are located within the fortifications of Paris, and who consume 50 tons or more annually in factories where such consumption can be overseen and verified by the authorities, receive a reduction of octroi duty to 20 cents per ton. Under this privilege 459,270 tons were brought into Paris in 1901, but coal and coke for domestic fuel pay the full maximum rate above stated. This does not include the large quantity of coal which is consumed in the various factories and industrial establishments in St. Denis, Puteaux, Suresnes, Charenton and Montrouge and other suburban towns which form what is known as the 'banlieu,' or the portion of Paris outside the walls, where, for reason of greater cheapness of land and reduced octroi duties, most of the large industries in metals, automobile manufacturers, etc., are located. But the total amount of coal and coke consumed in the Department of the Seine in 1903 (including the city and suburbs of Paris) was 4,227,600 metric tons, practically all of which came from Northern France, Belgium and Wales. The wholesale prices of coal delivered at the gates of Paris, not including the octroi duty, are at present as follows: Per metric ton (220 pounds) bituminous lump, 52 francs (\$10.03); anthracite, 62 francs (\$11.98); coke, 1.75 per hectolitre, or \$7.43; briquettes, 40 francs (\$7.72).

"When to these prices is added the

octroi tax of \$1.40 per ton there is obtained the average cost of coal, coke and briquettes to the retail dealers, who supply most of the household consumers with fuel, which is delivered in bags containing 50 kilograms each.

"The retail prices of domestic fuel in Paris are as follows per metric ton: Bituminous coal (Charleroi), 60 francs (\$11.58); bituminous coal (Bascoup), 62 francs (\$11.96); anthracite (Welsh nut), 67 francs (\$12.93); anthracite (Welsh slack), 54 francs (\$10.42); coke (Paris Gas Company), 40.70 francs (\$7.85).

"France consumed in 1903 42,604,100 tons of coal, of which 34,217,661 tons were the product of French mines, while the remaining 8,476,439 tons were imported. Cardiff and Belgium coals are delivered at Havre at prices varying, in ordinary seasons, from \$4.63 to \$5.21 per ton. This is the competition which American coal would have to meet, since from that port of debarkation, common to all imported coals, the costs of duty and freightage to the interior would be the same.

"The railway freight rate on coal from Havre to Paris is 70 francs per carload of 10 tons, or \$1.35 per ton for a haul of 143 miles. The rate by the river Seine, which is open to navigation practically the entire year, is from \$1.05 to \$1.10 per ton. Add to this the import duty of 26 cents, and it will be seen that the Belgian and Welsh coals can be landed in ordinary times at the docks outside the walls of Paris for about \$6.36 to \$6.50 per ton. The wholesale price charged by importers to local dealers for bituminous coal is at present, as already stated, slightly more than \$10 per ton. Is there not in the margin of \$3.50 to \$3.64 between these figures an opportunity for American coal, provided the whole transaction, including mining, railway and ocean transportation, and transshipment at seaports, is so organized and managed as to develop a large trade and reduce expenses per ton to a minimum? In other words, can American bituminous coals of the grades adapted to gas manufacture, domestic use and general industrial purposes be delivered in large quantities at Havre for a cost not exceeding \$5 per ton?

"Coal imported into France pays, as already stated, a duty of 26 cents per metric ton. In respect to duty, freight up the Seine to Paris and other charges American coal would be on the same basis as Belgian and British coals, which come into France principally by that route.

"The demand for foreign coal will increase with the gradual exhaustion of the French mines, and the consumption will be augmented in proportion to whatever reduction can in future be made in the present high cost of fuel. There are millions of tons of good coking and gas coals in the Allegheny and Cumberland districts of the United States which can be produced with profit at the mouth of the mine for an average price of \$1 to \$1.25 per ton. When the railroads now projected or under construction are finished and in operation it should be possible to carry such coals to tidewater for a freight rate not much, if anything, in excess of \$1 per ton.

"When in 1902 the project of exporting American coal to Europe was actively discussed, it was the consensus of expert opinion that the successful development of such a trade would require the construction of a special class of vessels which would do for the ocean-going coal traffic what they had done for the ore and coal trade of the Great Lakes, namely, steel barges of 10,000 tons burden, stanchly built, with quarters for a crew of 10 to 15

men and engine power sufficient for a speed of 8 or 10 knots per hour, which would give steerageway sufficient for safe handling in all weathers. Given a fleet of such vessels, with loading docks for coal along the Chesapeake bay or Atlantic coast, and a reliable return freight, and the problem of a large and expanding coal export to Europe, which depends primarily on an ocean freight rate not exceeding \$1.25 to \$1.50 per ton, would be practically solved. * * * The time will doubtless come when most, if not all, European countries will prohibit the export of native coal except to their own colonies. The imported fuel supplies of France, Italy, Spain and Scandinavia will then have to come mainly from beyond the Atlantic. It will be strange indeed if American foresight shall fail to recognize the opportunity which time will ripen and the immutable laws of demand and supply will offer to American enterprise."

Mr. Mason believes that this demand for coal abroad will tend to solve the problem of a supply of iron ore for the United States. He says:

"Several months ago the Parliament of Sweden, then in session, adopted a resolution calling for a report showing the extent of the known deposits of iron in Sweden and other countries and the rate at which such deposits are being consumed by the steadily-expanding iron and steel industries of the world. The report was made by the chief of the Swedish geological survey, together with comments by several other experts, and the whole published in the *Technische Zeitschrift*, from which translations have been made and reprinted in several leading organs of the iron industry in Europe and America. While there has been some dissent as to the exactness of certain details, the report has been accepted as substantially accurate. Assuming, therefore, as true the claim of geological science that the extent of workable iron-ore beds is known to within a margin of possible error not exceeding 5 per cent., the Swedish report, which is based upon the most authoritative information, has naturally attracted world-wide attention.

"Condensed to their smallest compass, the statistics of the report give the following comparative exhibit of the whole known amount of workable iron ore yet available in the several iron-producing countries. The present annual output of ore and the amount of ore actually consumed by each is as follows, in tons:

Country.	Workable deposits.	Annual output.	Annual sumpt'n.
United States	1,100,000,000	35,000,000	35,000,000
Great Britain	1,000,000,000	14,000,000	20,000,000
Germany	2,300,000,000	21,000,000	24,000,000
Spain	500,000,000	8,000,000	1,000,000
Russia and			
Finland	1,500,000,000	4,000,000	6,000,000
France	1,500,000,000	6,000,000	8,000,000
Sweden	1,000,000,000	4,000,000	1,000,000
Austria			
Hungary	1,200,000,000	3,000,000	4,000,000
Other countries	5,000,000	1,000,000
Total	10,000,000,000	100,000,000	100,000,000

"While it is probable that the foregoing statement does not take into adequate account the undeveloped ore deposits in Utah and Alabama,* its teachings are nevertheless obvious and impressive. Of the world's workable iron-ore deposits, as at present known, the United States possesses only about one-ninth, and at the present rate of consumption the entire supply will be exhausted within the present century. Commenting on the known and generally accepted facts of the situation, the *Iron and Coal Trades Review*, the foremost organ of the metal industries in Great Britain, says in its issue of December 15, 1905:

*In the MANUFACTURERS' RECORD of January 4 was described with some detail the discovery of a supply of gray ore in Alabama promising to furnish certainly 300,000,000 tons of ore.

"We would seem to be within little more than half a century of an absolute iron famine. This fact raises problems of serious consequence to the world's iron industry and to the outlook of civilization itself."

"It is well known that the high-class ores of the lake district in America will, at the present rate of consumption, be exhausted within less than 50 years. The Mesaba deposits, with the present annual output of 12,000,000 tons or thereabouts, will not outlast 25 years, and it requires only a simple calculation to demonstrate that a continued yearly consumption of 35,000,000 tons of ore by the iron and steel industries of the United States will, within the lifetime of many persons now living, eat away entirely the 1,100,000,000 tons which, according to the report above cited, constitute our country's entire workable supply as at present known. Inasmuch, therefore, as the United States possess but about one-ninth of the world's ore deposit, and yet consumes more than one-third of the total annual output from all countries, the conclusion is direct and unavoidable that the future economic policy of American ironmasters should be to secure by all practical means the largest possible ore supply from the mines of other countries. How can this be most economically and effectively accomplished?

"The problem is largely one of transportation, in which the item of marine freight rates plays a dominant part. An economic long-distance ocean rate for heavy, low-class merchandise involves necessarily two conditions, viz., vessels specially adapted to the trade, and return freights that will bear an equal or higher charge for transportation. The ship that brings ore from Spain, Sweden and other European countries to the United States must have each trip an eastward-bound cargo that will be more than ballast and yield a regular and definite profit. There is but one material which will meet the requirements of the case, and that is coal."

A New \$200,000 Dry-Dock.

Considerable activity is reported in the ship-repair plants located at New Orleans. In former years it was generally necessary for vessels touching at New Orleans to have their repair work attended to at other ports, but docks and marine repair works having been established during recent years, a goodly quantity of work of this character is contracted for at New Orleans. The Johnson Iron Works, the Southern Marine Works and the owners of the New Orleans dry-dock, which was built at Orange, Texas, and towed to New Orleans last summer, are all busy with contracts. These marine engineering interests will be augmented during the next several months by a modern \$200,000 dry-dock general machine shop for marine repair work, and wharves. This enterprise is planned by Moses Schwartz of New Orleans and his associates in that city and Boston, Mass. It will be located in Algiers, across the Mississippi river, and will replace the old McClellanville dry-docks. The projectors of the plant own about 5000 feet of river-front property. They propose using electricity for power.

Wants Courthouse Plans.

In writing the MANUFACTURERS' RECORD regarding the proposed courthouse for Beaufort county, North Carolina, Wiley C. Rodman of 112 Market street, Washington, N. C., states that plans and specifications are wanted for the structure. Architects who are specially skilled in planning buildings of this character are invited to correspond. The appropriation for erection will be \$50,000. Mr. Rodman is one of the committee in charge.

WATERWAYS IMPROVEMENT.**The Liberal Part to Be Played by the General Government.**

Bearing upon the discussion of provision on a large scale by the government for the improvement of the country's rivers and harbors, the MANUFACTURERS' RECORD has received the following letters additional to those published last week:

Charles E. Hellier, Big Sandy Company, Boston, Mass.:

"Your efforts in behalf of government appropriations for inland waterways are very interesting, and should produce some tangible results. The matter is of great importance, and it is surprising that it has received so little consideration from prominent men heretofore. A comparison of what has been done by the nations of Europe in the way of inland waterways would show how derelict our legislators have been with respect to this matter. The volume of freight business on the railroads has been so great that it overtaxes their ability to handle it and congestion and many other things annoying to the shippers are the result. Bulky freights should be carried on waterways at the cost of a fraction of a mill a ton per mile. The iron and steel business of the United States would never have been built up to its present commanding position without the cheap water rates from the Lake Superior ports to the Lake Erie ports. The State of New York is doing a great work in deepening and widening the Erie canal at the cost of \$100,000,000. This should be an example and an object-lesson for other similar improvements. I sincerely hope you will be able to ascertain the actual existing facts as to inland transportation by water in Europe and present them to the public which your very influential paper reaches. You have undertaken perhaps your greatest work in endeavoring to bring about proper water transportation facilities in the United States, and success should finally crown your efforts. It is a campaign of education which will have to be waged, but once the people realize the importance to them of a system of national waterways they will insist upon having them."

Congressman William Lorimer of Illinois:

"I am very earnestly in favor of improving our harbors and inland waterways. I do not consider it essential that the government issue bonds for river and harbor improvement. If the people of the country can be brought to realize the importance of river and harbor improvements from a commercial point of view, appropriations sufficiently large can be secured from every Congress to complete the work as rapidly as the engineers of the department can make the plans."

I. H. Odell, vice-president for Indiana of the Ohio Valley Improvement Association, Evansville, Ind.:

"The improvement of the inland waterways of the United States affords such an opportunity for thought and study that page upon page may be written without giving the average American a proper appreciation of the benefits to be derived therefrom. All know commerce will be greatly increased and that the waterways of the United States will be an important factor as a regulator of railroad rates with only a reasonable appropriation for improving some of the lakes and rivers that now permit the use of small crafts only, and some of them navigable only at certain seasons, but those who realize fully the benefit of deepening the lake harbors, the improving of the upper Mississippi and tributaries, the Ohio river and its thousands of miles of tributaries and of confining the lower Mississippi river to its banks and of a deep canal from Lake Michigan to the Mississippi I am afraid

are small in numbers when compared to our great population. A campaign of education must be inaugurated. The people must be awakened, and, regardless of party politics, men who will pledge themselves to vote sufficient appropriations to carry on the great work of improving all navigable lakes and rivers by deepening or by locks and dams should be nominated and elected to Congress. Anyone not willing to make the race on such a promise should be defeated. I believe the immediate needs for carrying on the work of improving the inland waterways demand of the next Congress an appropriation of \$200,000,000, to be realized from the issuance of 20-year government bonds, and annually thereafter \$100,000,000 of bonds until the entire work is completed. This would seem to some persons extravagant and a start to bankruptcy. Not so. Every dollar of these bonds will be a five-dollar asset for the government in the increase of manufactures and export of American products. Such a stream as Green river since it was improved stands ready as a feeder for the great Ohio river, which, with only two or three locks and dams between Louisville and Cairo, could be made navigable to the Gulf for heavy-draught vessels. The paltry sum necessary to improve the lower Ohio would be paid back double the first year and greatly increased ever after. Very few know the extent of the coal fields contiguous to Green river, nor do they know that in gas-producing qualities that most of the Kentucky coals are superior to Pittsburg. With the completion of the Isthmian canal a development of these coal fields alone will produce millions annually, and as to agricultural interests, the lands from which timber is now being taken will rank with any in the world. With the development of the entire inland waterways, what would be the result in other sections which by nature are equally endowed? Who can picture the future of Chicago pouring through Lake Michigan and the canal to the Mississippi and down that great stream to New Orleans (making the latter city a great leader in exports and imports) and out across the Gulf and Isthmus? The great waterways of the East and West, when given the proper attention, would produce like results, so there is no sectionalism. Every section must and shall have its proportion of necessary appropriations. It makes the average American blush with shame to think that the proportion from 1879 for 20 years was only 1.52 per cent., while that for fortifications during same period (when at peace with the whole world) was 25.77 per cent. Shame upon the congressmen who in making their campaigns for election vowed they would represent the districts that placed them in a high position, then voted for almost nothing of a river and harbor bill. The National Waterways Association recently organized is the 'beginning of the end' for such congressmen, and we should at all times and in all places make it known that future congressmen have higher obligations and duties to perform than to hold down a seat in Congress, throttle a decent river and harbor bill and draw a salary. If they will not give us a fair appropriation, let every American interested in this great question demand, as I stated above, representatives who will pledge Congress to give \$200,000,000 in bonds covering that amount of appropriation the next session of Congress, then \$100,000,000 annually until the whole work is completed. The MANUFACTURERS' RECORD has begun a noble work, and I trust will be ably assisted by the press throughout the country."

In this connection a circular-letter issued by the executive committee of the National River and Harbor Congress,

which met recently in Washington, is of special interest. The circular, which is designed to increase the membership of the congress and extend co-operative interest in its work, embodies the resolutions adopted by the congress looking to an annual appropriation of \$50,000,000 for the permanent improvement of navigable waterways and harbors of the nation, and says:

"Agriculture and commerce, from which is derived the entire revenue of the government, has for the past 10 years received less than 3 per cent. of the entire annual appropriations to improve the natural and economic highways (rivers and harbors)."

"War and its rewards (army, navy and pensions) receive over 40 per cent. of the entire revenue. In asking for \$50,000,000 for rivers and harbors, less than 7 per cent. is requested for the benefit of the agricultural and commercial interests, from which all the wealth of the nation is derived."

"Rivers and harbors bills in the past 10 years have been passed every three years instead of annually, and the average carried by such bills has only been \$19,251,781 a year."

"To the end that agricultural, mercantile, manufacturing and mining interests of the nation, vitally concerned in cheap carriage of their output to home and foreign markets, should have just and due recognition by the Congress of the United States, the National Rivers and Harbors Congress at its second convention, having delegates to the number of 600, representing 110 commercial organizations and waterways associations and 34 States of the Union, decided, by resolution unanimously adopted, to perpetuate and strengthen the organization by the appointment of an executive committee, to consist of 15 members, who shall be charged with the duty of actively prosecuting the work of securing regular and increased annual appropriations for the improvement of rivers and harbors of the country, and to this end to take such steps and use such means as will tend to mold public sentiment in favor thereof."

Accompanying the circular is a letter from Hon. Theodore E. Burton of Ohio, chairman of the committee on rivers and harbors of the House of Representatives, in which he says:

"I regard the work of the Rivers and Harbors Congress as very helpful to the improvement of harbors and inland waterways. The work of the executive committee will be most helpful if all its activity is exerted on behalf of general improvements. I sincerely hope that no special locality or project will receive special attention. I would repeat what I said in my address, that great good can be done by the diffusion of correct information and the removal of popular misapprehensions. It would be well to set before the people in carefully-prepared statements the comparatively small amounts appropriated for rivers and harbors; also the benefit conferred by these appropriations. If public sentiment can be awakened and the work of the congress and its committee thoroughly understood, it will be much easier to obtain adequate appropriations for these purposes. It will be impossible to entirely ignore specific projects, though I trust the general question will be the one most considered. I should be glad to prepare for you some instances in which appropriations have been of very great benefit if they will be of use to you."

The executive committee of the National Rivers and Harbors Congress consists of Messrs. Joseph E. Ransdell, chairman, Washington, D. C., and Lake Providence, La.; Wm. H. Lincoln, Boston, Mass.; Robert Ramsay, Baltimore, Md.; E. J. Hale, Fayetteville, N. C.; M. J. Saunders,

New Orleans, La.; S. W. Duncan, Dallas, Texas; John A. Fox, Blytheville, Ark.; W. P. Kennett, St. Louis, Mo.; Albert Bettinger, Cincinnati, Ohio; W. B. Rogers, Pittsburgh, Pa.; Henry T. Clarke, Omaha, Neb.; Wm. Lorimer, Chicago, Ill.; Wm. J. Crosby, Detroit, Mich.; John W. Ferris, San Francisco, Cal.; A. H. Devere, Portland, Ore.; J. F. Ellison, secretary and treasurer, 204 East Front street, Cincinnati, Ohio.

LABOR CONDITIONS IN ENGLAND.

By C. F. Z. CARACBISTI, C. E., E. M.

[Written for the Manufacturers' Record.]

I have looked into conditions in Derbyshire, Cheshire and Devonshire. Here, to my utter astonishment, while prices of labor do not compare favorably with American wages, work is fairly abundant and poverty is not evident; in fact, the supply and demand for labor reached within 10 per cent. of normal; that is, excluding that class of people who, from constitutional inertia or other causes not explained, add to the roster of the idle. I estimate that the total unemployed would be about 16 per cent. Yet this statement should be qualified by the remark that a larger percentage of persons who are not wholly dependent on labor for a living are employed, so that the apparent idlers are the result of an artificial condition.

Talking to a locomotive engineer, a man who has been running the fast express on the Midland Railway for over 25 years, he tells me that his salary is £2 10s. per week, or \$12. This pay is less than the average price of a street-car conductor (\$14) in the States, and the eight-hour system is not recognized in practice. This pay may be taken as a basis for calculation on all wages paid throughout the North of England. Thus after a study of the situation I find that the price of labor as compared to similar labor in the United States is only 40 per cent. This average will apply to all classes of labor, from the skilled mechanic, clerk, miner, unskilled laborer and house servant. I have arrived at these figures as applied to England by grouping the actual wage paid and striking an average and doing a similar calculation with American labor. The great divergency of opinions expressed in British parliamentary documents does not warrant the use of official figures that vary from 31 to 42 per cent.

The labor element of Great Britain hopes much from the Labor Unionists in the House of Commons, but close scrutiny into the plans of this communistic power reveals the fact that nothing will or can be done. The party is hopelessly split, and even Mr. Joan Burns, when asked what he would do for the unemployed, stated that he would "cause the militia to maneuver in the winter." Anyone familiar with the rigor of the British climate, and particularly the Salisbury plains, where maneuvers are held, knows perfectly well that tent life in winter is wholly unbearable. Nor does the learned John tell us who is to feed the hungry families while the sham war is in progress. This is about as far as the party has gone.

Everyone throughout England asks the cause of this depression. So far as I can see there are two vital causes, neither of which are given to the public.

1st. Germany has and is displacing British manufacturers in many parts of the world, and England's prosperity is due to its manufacturing industries, and its fall means disaster.

2d. The Boer War has depleted the national revenues, and British pride does not wish this fact to become apparent. Therefore the wealthy people and the banks are overstocked with consols, and ready money is not available, nor can't be

until it once more finds its way back through the ordinary channels of trade.

Great Britain is living on the hopes of a satisfaction that destroys.

Fortunately, the mining sections of the country are the least affected; the people are more content, and if we could induce some of these to come to America we would have some good miners at a time when we need them.

And while I am speaking about labor, the American would hardly believe that office and other clerks work at from \$3.84 (16s.) to \$7.20 (30s.) per week. Sir Thomas Lipton, who employs many clerks in his London and other offices, pays his clerks an average of \$4.80 (£1). (It may be stated that my rate of exchange is wrong, but I am assuming that the rate fixed by the International Postal Union is the correct one.)

Now these \$4.80 clerks are expected to wear white shirts and cuffs, a Prince Albert coat and vest and high silk hat. Many have families. But Sir Thomas is only selected because he is well known in America, and not because he is an exception. The fact is, this is the universal pay in England.

LINSEED-OIL MILLS.

Opportunities in the South for Their Operation.

[Special Cor. Manufacturers' Record.]

Atlanta, Ga., March 6.

Painting has long ago ceased to be a luxury in civilized nations; it is accepted as a necessity. The South, just now alive to development in most if not all industrial lines, is at length realizing the true value of linseed oil and pigments in suitable combination as painting material. In cities such as New Orleans, Memphis, Atlanta and many others which might be mentioned the demand for artistic work and material for exterior adornment as well as preservative properties are relatively equal to that of industrial communities elsewhere. In the matter of looking upon paint as a requirement of the times, however, with special reference to general outdoor painting, whether of an artistic or rough character with regard to its application for residential and factory uses generally, the South, broadly speaking, presents a field for cultivation.

There are a number of reasons which might be adduced just why the South has been somewhat lax in this respect. Not the least is the fact that linseed oil, the base of genuine paint, has been more difficult to obtain in the South than elsewhere in the United States. Furthermore, it is from 15 to 20 cents per gallon dearer in four-fifths of the territory covered by the Southern States than in the Northern States. It must be brought to the Southern consumer from either Minneapolis, Chicago or New York. The long haul by rail and lengthy trip by water runs up the price, thus rendering the staple comparatively scarce and costly. There can be no good reason advanced why a linseed-oil mill cannot be operated to good advantage either in New Orleans, Mobile or Galveston, or, for that matter, one in each of these cities, as there is an ample consumptive demand for linseed oil in the South to keep several fairly-sized mills in operation continuously the year around. In the train of the linseed-oil mill follow the varnish and paint-manufacturing industries, to which may be added oilcloth factories, and a number of other industrial plants could be mentioned.

There is a movement afoot now which has for its object the construction and operation of an up-to-date linseed-oil mill in Mobile on the line suggested. There is a market readily obtainable in the far South and Southwest, not to speak of the flourishing cities of Atlanta, Memphis and

Birmingham, for the entire output of several oil mills. The cake can be sold always at several dollars per ton more than for cottonseed cake before it is actually made, and in 10,000-ton lots, if such quantities could be produced, Great Britain and European markets standing ready to buy. A linseed-oil mill at a suitable point on the Gulf coast could not only control much of the interior trade, but also that of Cuba, the West India Islands, Porto Rico and Mexico to better advantage decidedly than New York or Chicago.

Linseed oil can be made just as well in the South as elsewhere, and to better advantage for Southern consumption, naturally. To me it has long been a matter of surprise that this industry has not received the attention in the South that its importance warrants. Paint factories are increasing in number in the South—it is these upon which the linseed-oil mills largely depend for the disposition of their products—but their number would materially increase with the establishment of a plant or plants manufacturing linseed oil, the base of paints and varnish.

A number of the large Northern paint houses have agencies at important distributing points throughout the South. With linseed oil available at prices not in excess of that which prevails in Northern cities there is no doubt these concerns would install paint machinery at their respective distributing points and manufacture paints on the spot.

JOHN BANNON.

To Develop Tennessee Lands.

The MANUFACTURERS' RECORD of March 1 referred briefly to the purchase of 16,000 acres of coal and timber lands in Cumberland county, Tennessee, by the Southern Contracting & Development Co. of New York. Developments, it was stated, will include the erection of a lumber mill of 50,000 feet daily capacity, woodworking plants, coal-mining, etc. Further particulars are that the development corporation company being formed will be known as the Tennessee Coke & Coal Co., capital stock \$2,500,000, with an issue of \$1,000,000 in bonds, which has been subscribed, financial arrangements having been completed in the East prior to the purchase of the properties. The 16,000 acres of land lie north and south of Crossville, Tenn., in tracts of from 200 to 9000 acres. The Southern Company states that all three of the series of Cumberland Plateau coal measures are found on these lands, the most important being the lower or Big Sewanee seam, running from 6 to 18 feet in thickness, lying under a fine slate roof and resting on fire-clay. It is claimed that users of coke in large quantities have analyzed this coal and found it to be high grade for coking purposes. The properties have been tested with diamond drills and numerous pits and other openings.

Professor Bickley, the Ohio geologist and mineralogist, is said to have estimated that 100,000,000 tons of coal can be mined on these lands. The following have consented to be officers of the Tennessee Coke & Coal Co.: Herbert M. Sternbergh (vice-president and general manager American Iron & Steel Manufacturing Co.), Reading, Pa., vice-president; Webster Blocker (president Southern Contracting & Development Co.), New York, second vice-president; Lucius P. Wilson (vice-president and general manager Southern Contracting & Development Co.), New York, general manager; Robert Bruce Clark (general auditor American Linseed Co.), New York, treasurer; Newton H. Emmons (Ellington & Co., New York Stock Exchange), New York, secretary. The presidency of the company has been offered to a man prominent in the coal trade, who is expected to accept. Mr. Wil-

son will be in charge of the preliminary development work at the mines, and will exercise personal supervision over organizing the large timber industry that will precede practical mining. The Southern Contracting & Development Co., Webster Blocker, president, has its New York offices at 41-43 Wall street.

Tennessee-Kentucky Oil Fields.

[Special Cor. Manufacturers' Record.]
Barbourville, Ky., March 5.

Dissatisfaction over prices paid by the Standard Oil Co. for crude oil in the Kentucky-Tennessee fields has had a tendency to lessen the drilling force during the past few weeks. Consequently production has not been up to the figures that would have resulted from better prices. The better grade oil now commands 89 cents per barrel, these figures prevailing for the past four months. The inferior grade of oil, which is limited to Bath and Rowan counties, in Kentucky, commands 55 cents per barrel. During the winter season, when field operations are more expensive, oil prices are usually higher than during the summer season. Two years ago \$1.30 per barrel was reached by the better grade product.

With the beginning of the spring season, when there will be a better profit in production under existing prices, there will be an expansion of the drilling industry. Many wells which do not pay pumping expenses during the winter will be put to work again and a rising production will occur. Already arrangements are being made for considerable drilling in sections which have attracted very little attention during the winter, several large contracts having been made during the past week.

Developments during February were satisfactory, in view of the season and the prices. In the fields of Wayne, Wolfe, Bath, Rowan, Whitley, Floyd and Knott, in this State, and Fentress county, Tennessee, 39 wells were drilled, few dry holes appearing out of this number. The aggregate output of the wells approximates 1300 barrels. Few wells of the gushing class were drilled, most of the producers being of the middle class. The average weekly runs during February were 25,000 barrels.

A great deal of test drilling will be carried on during the spring in sections where no production has yet been developed. The milder weather will enable the operators to transport drilling machinery into the more inaccessible regions, and that class of work will be of importance.

The Standard Oil Co. now has a complete pipe-line system several hundred miles in extent through the Kentucky and Tennessee divisions, and a ready market is afforded the product. Inasmuch as Kentucky-Tennessee prices are the same as Ohio-Indiana prices, no discrimination may be charged, but at the same time producers, in view of existing conditions in the oil trade, do not believe prices are what they should be. It is believed by many that the agitation concerning the Standard in the mid-continent fields is keeping oil prices down.

W. S. HUDSON.

The Standard Portland Cement Co.

The Standard Portland Cement Co. will soon begin constructing its plant at Leeds, Ala., designed as a unit of six 100-foot kilns, producing 1800 barrels of high-grade Portland cement daily; estimated cost \$500,000. The reports which stated that the Standard Portland Cement Co. was formed by arrangements between the Carolina Portland Cement Co. of Charleston, S. C., and the Old Dominion Cement Co. of Staunton, Va., were erroneous. The Standard Company has its main offices at Charleston, and J. R. Hanahan is presi-

dent. Complete details of the company and plant were given by the MANUFACTURERS' RECORD of February 15.

A Currency Suggestion.

Editor Manufacturers' Record:

I wish to suggest an act to provide for the issue of a reform currency to replenish the deficit that might occur in the United States Treasury, to raise any amount of funds in case of a money panic, and to increase the per capita circulation with a safe, sound and legitimate currency.

1st. Let Congress authorize the issue of 2 per cent. interest-bearing gold bonds to the amount of \$100,000,000 (more or less), and in connection with the issue let it authorize the issue of circulating currency notes to the amount of \$90,000,000, or 90 per cent. of the bond issue.

2d. Let these bonds be placed on sale at par at every postoffice in the United States according to the gross receipts of each office, pro rata with the total gross receipts of the United States, to the total issue of bonds, and with each sale of the bonds give the purchaser 90 per cent. of the same in the circulating notes, the purchaser depositing the gold bonds with the Treasurer of the United States to secure the 90 per cent. circulating currency.

3d. Let these gold bonds run 5, 10 and 20 years, redeemable at the option of the government after maturity, when upon demand of the United States the holder of these bonds shall secure the 90 per cent. of their face value in the circulating currency and deliver the same to the United States Treasurer. The United States Treasurer shall then redeem the face value of the bonds in gold.

This act will take the place of the national bank act, will be no discrimination against the poor, will be sound, safe, fair, legitimate, and will equally distribute currency among the nation.

JOHN L. DEW.

Latta, S. C.

A Great Compressed-Air Plant.

Editor Manufacturers' Record:

A description of what is called the largest compressed-air plant in the world may interest many of your readers. This plant was erected and put in operation in less than six months. Two years ago the writer, after drilling a wildcat well at Nome Station, Southern Pacific Railroad, 20 miles west of Beaumont, Texas, and finding no oil, took many trips with his principal over the surrounding country to investigate oil prospects. One of these trips was from Houston to Humble, where we learned a couple of test wells had been drilled and many surface indications of oil were to be seen. Humble then consisted of the railroad station, a saw-mill and a few negro shanties with board chimneys. We walked about a mile and a-half to one of the old wells and on down the tram railroad to the gully, afterwards to be known as the most prolific oil field found in Texas. Only three or four houses were in sight. At one house we pumped a drink of water from a driven well in the yard, then touched a match to the pump and a flame leaped up through the pump—natural gas. We passed down the gully to the point where now stands the Moonshine Oil Co.'s air plant, containing 22 air compressors with 56 boilers to furnish steam to run them.

Three large buildings covered with galvanized sheet iron contain the boilers and pumps, and a separate building the water-pumping outfit. The boilers, of 30 horsepower each, locomotive style, sit in rows facing each other, 20 boilers in each of two houses and 16 in the third. At the ends of these buildings are the compressors of various makes, from 250 to 500 feet of free air per minute capacity.

As there was no stone to be had, heavy timbers, keyed to each other, were placed for foundations in building the plant. Upon these the compressors were set in rows. The largest machine would weigh complete, I should say, from five to eight tons. A steam line connecting with boilers and compressors would be a sight even to some practical men. It simply consumed carloads of valves and fittings.

Separate air lines run from each machine into a network of valves, all arranged so that any machine needing repairs can be cut out simply by shutting these valves. The air pressure is used to pump or flow oil wells, one-third of the production being given for the service, the Moonshine Company laying the air lines from the plant to the wells, a two-inch wrought-iron pipe being used for this service, connected to a two-inch line that was lowered into the well to within a few feet of the bottom of the well, which averages in this field 1100 feet. Many wells that would not flow naturally, by use of the air would produce 5000 to 7000 barrels per day.

An illustration of the volume of air needed to start some of these wells will give an idea of the immense pressure required at times. One well during the summer just passed was tubed and coupled up to the air line. One compressor not being sufficient, a second was hooked on, then a third, the first one throwing 500 feet, the two others 250 feet each per minute of free air. This was kept up at 500 pounds pressure for 24 hours before the well would respond. This information was gained from one of the engineers in charge.

Most of this machinery was hauled on wagons from the railroad two miles away over roads axle-deep with mud, sometimes requiring 12 span of horses or mules to each load. Often then it was necessary to use block and tackle to help out of mud-holes. All this machinery was placed in operation in a few months, and without doubt has made a barrel of money for the owners. Oil fuel was used under the boilers; water for boilers is pumped from San Jacinto river, one and one-half miles away.

The writer ate and slept in a camp just across the gully from this plant, and we imagine we can yet hear the roar of the oil burners and the cough, cough of the exhaust of these immense engines, which were kept going night and day. Perhaps in three months more this plant will all be dismantled and shipped to another field, for after a time the wells all have to be pumped, as the air will not avail. There were more air compressors used in this pool than any other oil pool in the State of Texas.

W. R. OSBORNE

Metuchen, N. J.

The Chamber of Commerce of Washington, N. C., has authorized the publication of an attractive illustrated pamphlet compiled by Mr. H. L. Grant, industrial agent of the Norfolk & Southern Railroad, setting forth the commercial, industrial and other advantages of Washington and its environments.

Secretary Donlan of the Chamber of Commerce of Savannah, in seeking for a location for a new enterprise, discovered the other day, according to the *Savannah News*, that there was not a single vacant building of any great size in the city that could be used for business purposes.

The Board of Trade of Little Rock, Ark., is circulating a folder containing facts about the deposits of soapstone, clays, bauxite, granite, slate and material for cement as suggestive of the future of Little Rock as a manufacturing center.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

A FLORIDA BEACH LINE.

St. Augustine to Have an Electric Railway to Anastasia Island by Next Winter.

[Special Cor. Manufacturers' Record.]

St. Augustine, Fla., March 5.

The St. Johns Light & Power Co. of St. Augustine is one of the latest organizations to enter the electric railroad business. Its plans for connecting St. Augustine with Anastasia Island, furnishing cheap and rapid transit, are maturing, and operations are proceeding vigorously to that end. W. D. Barnett, vice-president of the National Bank of Jacksonville, Fla., is president of the company; W. M. Bostwick, vice-president of the Guarantee & Trust Co. of Jacksonville, is vice-president, and T. R. Osmond, a mechanical engineer and railroad man of many years of practical experience, is secretary and treasurer. The capital of the company is \$300,000, all paid in.

Fulfillment of the plans of this company means much to St. Augustine and vicinity. Notwithstanding the development of this world-famous resort during recent years, its expansion on all sides, with points of historic interest punctuating its quaint, narrow and rambling streets, no organized system of transportation exists here excepting the volatile and persistent negro hack driver, who, together with extortionate charges, is persistent everywhere. There is a private or independent steam-car road connecting the island with St. Augustine, but the charge (50 cents) is high, and in most cases prohibitory. Furthermore, there is no service after 6 P. M., and when that hour is past Anastasia Island, with its magnificent beach and ocean view, is shut off from St. Augustine as though it were a hundred miles away.

It is the purpose of the St. Johns Light & Power Co. to build an electric railroad 10 miles long, starting from the waterworks on St. Marco avenue and running south through one of the main streets of the city, passing the Ponce de Leon and Aleazar hotels, together with other picturesque and historic structures. It will cross the Matanzas river by its own bridge to the island, going to South Beach, about four miles along the coast. The topographical situation bears a striking resemblance to Brooklyn and Rockaway, with the exception that the beach on Anastasia Island is not only undeveloped, but is practically without an important residence or structure of any kind. The operation of the proposed electric road will immediately turn attention to this fine beach, and it is safe to assume that before the expiration of five years after the line begins business the shores facing both the river and the ocean will be lined with cottages and hotels, besides other resorts.

The proposed bridge will be built of steel, and will be about three-quarters of a mile long. A draw will be necessary over the channel, and must be large enough to accommodate pedestrians and carriages, besides other vehicles, as well as electric cars. There is a movement on foot to convey the bridge to the city of St. Augustine for a price to be agreed upon with the company. Plans, specifications and estimates for this structure will soon be given consideration by the company. Rolling stock, including 10 passenger cars and 8 freight cars, is to be purchased, besides rails, ties and other railroad material. It is expected that the road within the city limits will be in operation by August 1 next, and that by January, 1907, the entire line and the bridge will be finished.

Ground was broken March 1 for the new power-house. The machinery has been purchased for delivery early next month. It consists of engines and generators with exciters, switchboards and attachments as follows: A 100-kilowatt Allis-Chalmers railway-type generator for the railroad service, connected directly to a 12x24-inch Reliance Corliss engine. As the name of the company indicates, electric light is furnished the city of St. Augustine, and in enlarging and perfecting its equipment for this purpose, having in view the growing needs of the city, the following additional electrical machinery was purchased from the Allis-Chalmers Company: One 325-kilowatt alternator, direct coupled to an 18 and 36x30-inch cross-compound Reliance Corliss engine; a 250-kilowatt alternator, direct connected to an 18x30-inch Reliance Corliss engine, together with a 90-kilowatt motor, generator set and switchboard. The ground will be cleared, four acres in extent, within the next few days, when piling operations will be pushed with as little delay as possible. Goold T. Butler, the well-known mechanical engineer and architect, of St. Augustine, has completed plans for this work.

Construction material in the way of brick, iron trusswork, roofing, etc., will be needed for the power-house. The boilers and pumping machinery have been bought. These include three 300-horse-power boilers of the Sterling Consolidated Boiler Co.'s type, Platt Iron Works' pumps and condensers and Green Fuel Economizer's water-heating apparatus.

The sales of this machinery were made, respectively, through Manager E. C. Butler (Platt Iron Works), 50 Marietta street, Atlanta, Ga.; H. Clay Moore, manager Green Fuel Economizer Co., Empire Building; Edward P. Moritz, manager of the Sterling Consolidated Boiler Co., Empire Building, and the office of the Allis-Chalmers Company, of which Messrs. Stevens & Thomas are managers, all at Atlanta, Ga.

The St. Johns Light & Power Co. is now furnishing to the city of St. Augustine light generated by a plant recently installed by the local gas company, whose interests have been purchased by the first-named corporation. This plant consists of a 150-kilowatt alternator made by the Fort Wayne Works, a 125-horse-power steam boiler from Coatesville, Pa., and a 200-horse-power engine of the R. Wetherill make, Chester, Pa.

The last purchase Mr. Osmond has made is two Pittsburg transformers. They are now being set in position to be operated in conjunction with 100 arc lamps, also just bought for immediate use to light the streets. Bids may be sent to T. R. Osmond, secretary and treasurer of the St. Johns Light & Power Co., St. Augustine, Florida.

JOHN BANNON.

ATLANTA TO THE GULF.

President A. B. Steele Describes the Plans of His New Railroad.

Mr. A. B. Steele, president of the Enterprise Lumber Co. and also of the Atlanta & St. Andrews Bay Railway, writes from Atlanta, Ga., to the MANUFACTURERS' RECORD describing the railroad and its purposes thus:

"The Atlanta & St. Andrews Bay Railway Co. is chartered under the laws of Alabama and Florida, and we expect later on to file a charter in Georgia, when we extend the road from Opelika, Ala., to Atlanta.

"The road is now being constructed from Dothan, Ala., to St. Andrews Bay, on the Gulf of Mexico, a distance of about 85 miles, and the grading has been completed from Dothan to Cottondale, Fla., a distance of about 31 miles. We are now

laying new rail on the roadbed at the rate of about one-half mile per day, and expect to have trains running into Cottondale by May 1 of this year, providing the weather will permit. We have had a great deal of rain, which has retarded our grading and tracklaying, but trust that when spring opens we will be favored with better conditions. We are locating the line from Cottondale to St. Andrews Bay, Fla., a distance of about 55 miles, and expect within 30 to 60 days to let this contract for grading, and hope by the first of April, 1907, to have this road completed from Dothan, Ala., to St. Andrews Bay.

"This line runs through some of the richest and most fertile agricultural lands in Alabama between Dothan and Cottondale, and through the town of Campbellton. While there is more or less timber in that section, the land for farming purposes is the most desirable. The railroad runs from Cottondale, Fla., through a solid body of yellow-pine timber, and undeveloped, to St. Andrews Bay, and when the timber is removed it will leave one of the most beautiful agricultural lands in Southwestern Florida.

"St. Andrews Bay is one of the finest bodies of water, and will make one of the best harbors south of New York city. The government has assured us that the channel will be deepened as soon as the railroad is put into St. Andrews, and that will let the largest ships of the United States navy anchor in St. Andrews Bay, where there are over 60 square miles of water basin, more than enough to store the whole navy. We really expect that after this road runs to St. Andrews Bay the 'Panama City' will be a town of 15,000 people in five years. It is a most beautiful country, and its climate is not only suitable for winter, but most desirable in summer, being on the Gulf of Mexico, and the lands are very high and dry, with no marsh surroundings.

"When the line is through to the Bay we expect immediately to commence the extension from Dothan, Ala., going through the towns of Clayton and Hurtsboro direct to Opelika, Ala. This is a distance of about 100 miles, and the road will pass through the richest lands of that State, what are known as the 'Black Cotton Belt' lands. The map shows that from Opelika to St. Andrews Bay via Dothan is a line as straight as a crow can fly, and we believe the time is not far distant when this road will be one of the leading trunk lines of the South, as it will have direct connections reaching through the richest parts of Georgia, Florida and Alabama, and giving the shortest line to the Bay and the Panama Canal from Birmingham, Montgomery and Atlanta."

"A. B. Steele of Atlanta is president and general manager of this company, and one of its largest stockholders; G. H. Purvis, also of Atlanta, is vice-president and secretary, and is also a stockholder; Ben W. Steele is second vice-president and assistant manager at Dothan, Ala., and P. J. Domer is chief engineer and general superintendent, also at Dothan."

WILL HAVE TWO ROUTES.

Pennsylvania to Build Another Line from New York to Pittsburgh.

President A. J. Cassatt of the Pennsylvania Railroad Co. in the annual report which has just been published announces the purpose of the management to build another double-track railroad between Pittsburgh and New York. This important work will be done by connecting up the several pieces of low-grade freight lines or relief roads already constructed, and their completion into a line of two tracks entirely distinct from the four-track main line will require the expenditure of about \$30,000,000. The new road will be alto-

gether about 450 miles long. About 184 miles is already practically finished and 152 miles are to be built immediately.

The report says the necessity for the prompt construction of these relief lines will be apparent when it is stated that the average daily movement of freight cars over the Allegheny mountain summit for October, November and December, 1905, and January, 1906, was 5669 cars, with a maximum movement in 24 hours of 6974 cars. There are also 28 passenger trains each way daily, and the total average number of daily trains is 168 in each direction. Furthermore, the tonnage over the Pennsylvania Railroad between New York and Pittsburgh has increased 40 per cent. in the last five years and the ton mileage has increased 32 per cent.

Towards the completion of this additional two-track line the company has very nearly finished the low-grade freight line between Yorkhaven and Glen Rock, and as soon as it is placed in service, which will be in a few months, there will be an entirely independent route between Marysville, Pa., and Morrisville, 137 miles. Another double-track relief line is in operation between the eastern end of the Allegheny mountain tunnel and Petersburg, 47 miles. The company will now proceed to build between Morrisville and Newark, N. J., about 50 miles, and between Glen Rock and Philadelphia, about 20 miles; also between Pitcairn and Blairsville, Pa., 43 miles, and between Johnstown and Altoona, Pa., 39 miles. The four-track main line between New York and Pittsburgh is nearly completed, and will be finished this year within the exception of about 10 miles of three-track line.

The financial report shows that the gross earnings of all lines directly operated during 1905 were \$133,921,992, the operating expenses were \$93,390,410 and the net earnings were \$40,531,582. Deducting rentals the net operating earnings were \$32,868,771, the gross income was \$44,905,489 and the net income \$30,102,516. The sum of \$8,424,881 was expended for various improvements. The regular dividend of 6 per cent. was paid, which distributed \$18,113,977 to stockholders.

On the lines west of Pittsburgh the Pennsylvania Company reports gross earnings, \$40,596,439; operating expenses, \$29,038,787; net earnings, \$11,557,651. The Pittsburgh, Cincinnati, Chicago & St. Louis Railway reports gross earnings, \$31,417,095; operating expenses, \$23,519,385; net earnings, \$7,897,709. The Vandalia Railroad reports gross earnings, \$7,845,222; operating expenses, \$6,150,054; net earnings, \$1,695,168.

Official Changes.

Mr. John W. Thomas, Jr., general manager, has been elected president and general manager of the Nashville, Chattanooga & St. Louis Railway to succeed his father, the late John W. Thomas, Sr., and Mr. H. F. Smith, traffic manager, has been elected vice-president and traffic manager. Since the death of Major Thomas the presidency has been filled by Major E. C. Lewis, chairman of the executive committee, as acting president. The new president entered the service of the railroad company about 25 years ago. Major E. C. Lewis was elected chairman of the board of directors, the position of chairman of the executive committee being abolished. He will have charge of the financial affairs and general policy, co-operating with the other directors. The president and vice-president will conduct the operations and traffic of the road.

Mr. Walter Rutland, who has been with the Charleston & Western Carolina Railway at Augusta, Ga., has been appointed superintendent and auditor of the East Carolina Railway, with office at Tarboro,

N. C. Mr. H. P. Foxhall has been appointed freight claim agent of the East Carolina Railway, also with office at Tarboro.

Mr. Alexander B. Shand has been appointed chief engineer of the Pennsylvania Railroad to succeed Mr. William H. Brown, retired, and Mr. F. B. Temple will succeed Mr. Shand as first assistant engineer.

Mr. E. Edmunds Foster has been appointed assistant general manager of the Chesapeake Steamship Co. at Baltimore, and he assumed his new duties March 1. Mr. R. Kemp Slaughter was appointed auditor and freight claim agent of the company to succeed Mr. Foster, promoted.

Mr. Chas. J. Williams has been appointed commercial agent of the Seaboard Air Line Railway, with headquarters at Jacksonville, Fla., to succeed Mr. C. T. Paxton, resigned, to accept service elsewhere.

The Southern Railway Co. has appointed traveling freight agents as follows: Mr. T. E. King at Jacksonville, Fla., vice Mr. W. J. Ayers, resigned. Mr. G. S. Gibson at Anniston, Ala., vice Mr. J. A. Smith, Jr., promoted.

New Equipment.

The Title Guarantee & Trust Co., Empire Building, Atlanta, is in the market for 100 flat cars 36 feet long and of 60,000 pounds capacity each, 20 box cars of the same length and capacity, and a locomotive, to be used at first for construction work and afterwards for mixed freight and passenger service, all on the Tampa Northern Railroad. Benjamin Thompson is chief engineer at 425 American National Bank Building, Tampa, Fla.

The South Baltimore Steel Car & Foundry Co. is working on an order of 500 steel coal cars of 80,000 pounds capacity each for the Seaboard Air Line. As heretofore noted, the company has several other large orders on hand from different companies, and its works are busy filling them.

The Houston Electric Co. of Houston, Texas, will, it is reported, purchase 20 double-track cars to increase its equipment.

The Virginia & Southwestern Railway has, it is reported, placed orders for 500 more cars, including 250 gondolas of 80,000 pounds capacity, which will be built by the Western Steel Car & Foundry Co. The others will be box cars.

The 1000 steel coal cars ordered by the Central of Georgia Railway from the Pressed Steel Car Co. will each be 31 feet 10 inches long and 10 feet 8 inches high over all, with a width of 10 feet. Each car will have a capacity of 50 tons.

Part of the Missouri, Kansas & Texas Railway's new bond issue will be used, it is said, for new equipment. The recent order of the Missouri, Kansas & Texas for rolling stock includes 1700 box cars, 300 ventilated box cars and 300 furniture cars, all of 60,000 pounds capacity each; 10 baggage cars, 10 chair cars and 8 postal cars, all to be built by the American Car & Foundry Co., besides 100 Rodger ballast cars of 80,000 pounds capacity from the Rodger Ballast Car Co., also to be built by the American Car & Foundry Co. The Baldwin Locomotive Works is also building for the Missouri, Kansas & Texas 20 mogul engines, 10 10-wheel engines and 5 switching engines.

BRUNSWICK TERMINALS.

Extensive Work for the Atlantic & Birmingham Railway—Four Steamers.

As heretofore reported in the MANUFACTURERS' RECORD, the Atlantic & Birmingham Railway Co. will build extensive terminals at Brunswick, Ga., and the Fore River Shipbuilding Co. of Quincy, Mass.,

the contractor, writes that it will dredge slips and construct two piers, one 350 feet long and the other 750 feet long, with sheds, four storehouses, a power plant, a water tower and a railroad freight yard.

The Brunswick Steamship Co. is the name of the corporation which will operate steamers between Brunswick, Ga., and New York and Boston in connection with the railroad. H. M. Atkinson of Atlanta, Ga., is president of it, as he is also president of the railway company. Four steamers have been ordered, and at first only freight will be handled. One of these vessels is to be finished by the builder, the Fore River Shipbuilding Co., by December 1 next, and the others are to follow at intervals of about a month. The steamers will be 312 feet long and of 5000 tons gross.

It is proposed to handle as freight iron and steel products from the Birmingham district, besides cotton and cotton products, lumber and naval stores. After the completion of the extension to Birmingham, which is to be ready for service next year, the entire road will be known as the Atlanta, Birmingham & Atlantic Railway, which at present is only the name of the extension. The steamers are to run twice a week from Brunswick.

Progress on New Work.

Fisk & Robinson of New York report: "In spite of the unprecedented rainfall, good progress has been made in the construction of the New Orleans Great Northern Railroad northward from Slidell, La. Of the 73 miles of right of way already secured, 63.9 miles have been cleared. Twenty-five miles of grading and track-laying have been completed northward, and bridge construction is under way for practically 40 miles beyond."

"While only that portion of the road formerly known as the East Louisiana Railroad, 49.51 miles long, is under operation, it is interesting to note that for four months ended October 31 the gross earnings were \$53,381; net earnings, \$16,605, and surplus over interest on bonds issued to acquire that property, \$9855."

The same firm also says: "All the concrete construction is completed, including the piers for the Kaw-river bridge, on the Kansas City Viaduct & Terminal Railway. Large accumulations of bridge material are available for immediate use, and the erection of the steel superstructure is being vigorously prosecuted. The engineers expect that it will be possible to have the main viaduct open by October."

Galveston Terminal Railway Co.

Mr. E. R. Cheesborough, secretary and treasurer, writes from Galveston, Texas, to the MANUFACTURERS' RECORD that the Galveston Terminal Railway Co. has acquired title to about 14 blocks of ground, and this tract is to be used for trackage, depots, etc. The St. Louis & San Francisco Railroad, the St. Louis, Brownsville & Mexico Railway, the Trinity & Brazos Valley Railway and the Rock Island system will in all probability jointly use these facilities.

Before beginning actual work the land purchased must be filled and other preliminaries will have to receive attention. The improving of the property will be done just as soon as possible.

The title of this company is the Galveston Terminal Railway Co., and its address is the Trust Building, Galveston, Texas. The officers are Sam Lazarus, president; John Sealy, vice-president; E. R. Cheesborough, secretary and treasurer.

Roanoke Railway Improvements.

Mr. J. W. Hancock, general manager of the Roanoke Railway & Electric Co., Roanoke, Va., informs the MANUFACTURERS'

RECORD that the company has purchased a lot at the northwest corner of Commerce street and Campbell avenue with a frontage of 50 feet on the first-named street, and it is expected by the company to build offices there, although it is not definitely decided when this will be done. The railway has also bought about 120 feet on the north side of Salem avenue, which may be used to make additions to the present car barn, although it is likewise not settled when that will be done.

Mr. Hancock further says that other improvements will probably be made this year in the way of increasing the capacity of the power station, the purchase of additional cars, the extension of lines and the rebuilding of present tracks.

North Carolina Railroads.

The report of the North Carolina Corporation Commission for the year 1905 shows that the railroads in the State have 3859.09 miles of line, an increase of 59 miles over 1904. The total valuation is \$60,573,334; Atlantic Coast Line, 947.83 miles, \$24,454,014; Seaboard Air Line, 612.12 miles, \$12,500,000; Southern, 1279.56 miles, \$26,310,589; miscellaneous roads, 1005.58 miles, \$6,308,731. The gross earnings of all roads were \$22,441,705 and the net earnings, not including taxes and interest, \$8,470,483, a gain of \$931,472 over the year previous. The total capital stock is \$64,368,405, and the total indebtedness \$68,111,253. The miscellaneous roads other than the Atlantic Coast Line, the Southern and the Seaboard Air Line show \$9,407,690 capital and \$9,823,016 debt. The railroads pay to the State \$641,766 taxes.

Three Contracts Under Way.

The Kenefick, Hammond & Quigley Construction Co., which, as heretofore announced, has the contracts for building the Colorado Southern, New Orleans & Pacific Railway and the extensions of the Beaumont, Sour Lake & Western Railway and the Orange & Northwestern Railway, has been formally incorporated in Texas with \$100,000 capital and headquarters at Beaumont. The officers are William Kenefick, president; F. S. Hammond, vice-president and treasurer; R. M. Quigley, secretary and manager. W. R. Smith is chief engineer, also at Beaumont, Texas. The contracts on which the company is now working are for the first-named line from DeQuincy, La., to Baton Rouge, La.; for the second from Sour Lake, Texas, to Humble, Texas, and for the third from Buna, Texas, to Newton, Texas.

St. Louis & North Arkansas.

Mr. George L. Sands, vice-president of the St. Louis & North Arkansas Railroad Co., writes from Eureka Springs, Ark., to the MANUFACTURERS' RECORD: "We have about completed arrangements for extension northwest, Seligman to Joplin, Mo., and southeast from present terminus at Leslie to the Mississippi river. River terminus not yet fixed. Total new line of approximately 261 miles. New connections Kansas City Southern, Missouri, Kansas & Texas and Missouri Pacific on the northwest, and St. Louis, Iron Mountain & Southern and the Choctaw division of the Chicago, Rock Island & Pacific on the southeast. Territory agricultural and mineral, with extensive area of virgin oak and pine. No construction or equipment bids have yet been asked."

Homeseekers' Low Fares.

The Santa Fe system has issued a circular entitled "Opening Up a New Country." It relates to the development of Oklahoma, Indian Territory, Texas and other sections. The circular says: "One way of developing this

imperial domain is to make the railroad fare so low that homeseekers can easily afford to go on a prospecting tour." On another page are presented the homeseekers' rates to different points, besides colonist and tourist rates. To the Southwest, for instance, round-trip homeseekers' tickets will be sold at three-quarters of the regular fare, but not less than a certain sum from Chicago, St. Louis and the Missouri river. W. J. Black is passenger traffic manager at Chicago.

General Offices Moved.

The Atlantic & Birmingham Railway has opened its general offices in Atlanta, Ga., having moved them from Waycross, Ga. They are in the new building of the Georgia Railway & Electric Co., and when the extension to Atlanta is completed they will be more than ever conveniently situated for looking after the business of the company. Among those who have transferred their offices from Waycross to Atlanta are George Dole Wadley, vice-president and general manager; H. C. McFadden, general freight and passenger agent; W. J. Swain, auditor, and Owen Phelan, freight claim agent. President H. M. Atkinson was already located in Atlanta.

Beaumont, Sour Lake & Western.

Mr. R. C. Welles, general manager of the Beaumont, Sour Lake & Western Railway, writes from Beaumont, Texas, to the MANUFACTURERS' RECORD that the steel for the extension of the line is arriving daily at Port Arthur, the ties have been ordered, and likewise the frogs and switches. All of the work for the next 12 or 15 months will be confined to track construction. Probably in about a year the company will take up the question of constructing passenger and freight houses. The chief engineer is Mr. M. A. Hansen, who becomes chief engineer of the Terminal Railway Co.

Corinth to Shiloh Park.

Mr. Mark T. Bynum, secretary, writes from Corinth, Miss., to the MANUFACTURERS' RECORD regarding the Corinth & Shiloh Electric Railway Co., which proposes to build a line from Corinth to the Shiloh National Park on the Tennessee river. He says: "We have organized by electing Abe Rubel, president; W. J. Lamb, vice-president and manager, and Mark T. Bynum, secretary. We will build an electric street railway and will operate an electric-light plant in connection with the Park Railway. We have our franchise and charter, and have incorporated."

Joseph Ramsey's New Line.

A press report from Pittsburg says that Joseph Ramsey, Jr., formerly president of the Wabash Railroad, has organized the Lorain Southern Railroad in Ohio and has purchased the Industrial Railroad of Lorain from the Sheffield Land Co. Furthermore, that he will build a line from Lake Erie to the Hocking valley coal fields and other coal lands along the Ohio river. It is possible that this may mean an extension into West Virginia. The Ohio Construction Co., W. D. Holliday, president, will build the line.

Glenville & Kanawha.

President Robert L. Ruddell of the Glenville Banking & Trust Co., Glenville, W. Va., informs the MANUFACTURERS' RECORD that application has been made to charter the Glenville & Kanawha Railroad Co. Some of the incorporators are C. M. Bennett, Robt. L. Ruddell, M. B. Morris, W. J. Holden, Howard R. Brandon, S. A. Hays, J. N. Shackelford and R. F. Kidd, all of Glenville. The proposed line will begin at Burnsville, W. Va., and run thence to Glenville and Weston, W. Va.

Railroad Notes.

The total assessment of railroads in Alabama for taxation this year is \$58,432,352, an increase of \$4,506,325. This does not, however, include depots and other railroad buildings.

Frank Pierce Jeffries has been appointed general purchasing agent of the St. Louis & San Francisco Railroad Co., with headquarters at St. Louis, Mo. He was until recently general manager of the Evansville & Terre Haute Railway.

A press report says that the Kansas City Southern and the Missouri, Kansas & Texas railroads will run trains into New Orleans over the line of the Louisiana Railway & Navigation Co., now rapidly approaching completion, and that they will jointly build large freight and passenger terminals in the city.

The Anacostia, Surrattsville & Brandywine Electric Railway Co., which has begun construction in the District of Columbia, is to build a line from Anacostia, a suburb of Washington, via Surrattsville to Brandywine, Md., about 16½ miles. At the latter point it will meet the Pennsylvania Railroad's line to Pope's Creek and the Washington, Potomac & Chesapeake Railroad, running from Brandywine to Mechanicsville, Md., 21 miles.

A \$100,000 Plaster Plant.

There will be established at Alva, O. T., a plant costing about \$100,000 for the manufacture of all kinds of gypsum products, such as cement plaster, wall plaster, finishing plasters, dental and modeling plaster, plaster of paris and land or fertilizing plaster. This plant will have a maximum capacity of 250 tons per day, and will be built by the Oklahoma Plaster Co., which has just been organized. The buildings in the main will be 60 feet wide by 300 feet long, and the J. B. Ehrsam & Sons Manufacturing Co. of Enterprise, Kan., is the designer and builder of the machinery and structures. The Oklahoma Plaster Co.'s officers are C. M. Poorman, president; J. M. Bickel, vice-president; C. A. Poorman, secretary; James A. Bickel, assistant secretary, and W. E. Poorman, treasurer.

Growth at Rocky Mount.

In 1890 the population of Rocky Mount, N. C., was 890. Ten years later it was 2000, and a local census now being taken will show that the town and its suburbs have about 8000 population. In 1900 the railroad machine shops were paying out \$12,000 a month in wages; now their monthly pay-roll is \$31,000. Mr. L. F. Tillery, cashier of the Bank of Rocky Mount, informs the MANUFACTURERS' RECORD that there is opportunity there for a thoroughly competent land surveyor and draftsman, and for car, canning, furniture, cigarette and smoking-tobacco factories.

A 50,000-Horse-Power Development.

Water-power development projects continue to be announced in the South. The latest regarding which the MANUFACTURERS' RECORD has been advised is contemplated by W. G. Schamberger and associates of Gallatin, Tenn. They have secured control of Cumberland Falls, or the falls of the Cumberland river in Whitley county, Kentucky, and will build a dam and electric power-house. A fall of 180 feet is said to be obtainable, and it is believed that 50,000 horse-power can be developed for transmission by electricity.

Capitalists are negotiating for the Ouachita Cotton Mills, an idle plant of 2496 ring spindles and 75 looms at Monroe, La. They propose increasing the mill to 5000 spindles immediately upon closing the purchase and adding 15,000 spindles during the next three years.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Higher Textile Training.

A recent bulletin of the Lowell (Mass.) Textile School, arguing for advanced instruction in the textile arts, contains suggestions of value to persons interested in similar schools in the South. It says:

"In the Merrimack valley was first established on an extensive scale the manufacture of the coarser cotton textiles by power weaving, beginning at Lowell and gradually extending to the other great water-powers of the river, and finally to those of its numerous tributaries. Our manufacturers early came into competition with English Lancashire for the Eastern Asia markets, and by thoroughness of administration and rigid economies, involving low wages, long hours, the utilization of child labor to an extent that compelled legislation, etc., they won. The honest character of their fabrics established them as standards and their trade-marks became very valuable. Although Massachusetts is spending from \$7,000,000 to \$10,000,000 annually on the public schools you supervise, manufacturers have been able to utilize but a meagre percentage of the intelligence thus created. They have searched the world over to find operatives accustomed to conditions of living and a wage which our people would not accept, and thus they held the markets they had won. Then came Southern competition in coarser lines. It was found that the South offered conditions for making the coarser cotton fabrics at lower cost than they could be made on the Merrimack. Northern capital that had been going to the extension of our local textile industries began to flow South until our own corporations were compelled to duplicate there their plants or go out of the coarse textile business.

"To retain our leading industry we must go into the higher, finer and more varied fabrics, as the foreign manufacturer did when we successfully competed in the coarser lines. Mr. Arthur G. Schofield of Manchester, England, in a recent article republished by the *Textile World Record*, referring to American competition, says: 'The answer we give is, she (America) consumes 90 pounds of cotton per spindle per annum; we, with the best of everything, only 35 pounds, showing her to be engaged with the cheap, coarse counts, and us with the costlier, fine.' We were exporting cotton fabrics the raw materials of which, mostly from the South, represented 75 per cent. of what we sold them for, and the brains, skill and profits but 25 per cent., while we were importing cotton fabrics in very much larger quantities in which the ratio of raw material to brains, skill and profits was as 1 to 10 to 40 and even more. This explains why during the recent speculation in raw cotton, when the price compelled our manufacturers to stop buying, the foreign manufacturer continued to purchase. Where so large a percentage of our standard fabrics is raw material the value of the most efficient service at the mills is often lost through a very small speculative fluctuation in the price of cotton, while the foreign manufacturer of finer goods scarcely feels the effect.

"But the finer fabrics require higher skill, and the changes from the coarser to

the finer and more varied fabrics requires a change from the so-called practical or rule-of-thumb methods to scientific methods. The industry must draw more largely on sciences and arts applicable thereto. More complex machinery is required, more exact methods, more varied processes; hence the necessity for the scientific technical school."

The Dickson Cotton Mill.

Further details have been obtained regarding the 7000-spindle addition decided upon for the Dickson Cotton Mill of Laurinburg, N. C. The company will erect an addition 112 feet long to its present building, which is 100 feet wide, but contract has not been awarded, nor have building materials (gravel roofing included) been purchased. Contract has been closed for the textile machinery, but does not include the power plant, consisting of a low-pressure cylinder for compound condensing engine and possibly a 150 high-pressure boiler; nor have belts, pulleys, hangers and shafting been purchased. Mr. Stuart W. Cramer of Charlotte, N. C., will be the engineer in charge of installing the equipment, and he will also prepare plans and specifications for the extension to the building. The estimated cost of the betterments to be undertaken is \$75,000. The Dickson Cotton Mill at present operates about 8000 spindles, producing skeins and hosiery yarn.

To Enlarge Cowpens Mill.

Preparations are being made to increase the equipment of the Cowpens Manufacturing Co. at Cowpens, S. C. Contract has been awarded for the necessary machinery, and it will be installed in the present building, which was originally erected with a view to adding to the equipment. The contract awarded calls for 5000 spindles and 150 looms, the latter to be furnished by the Draper Company of Hopedale, Mass. Four-yard sheeting will be manufactured by the new apparatus. There are at present 10,000 spindles and 264 looms in the Cowpens mill. The officers of this company include R. R. Brown, president and treasurer, and Horace Brown, secretary.

The German-American Company.

In referring to the progress being made by the German-American Company of Spray, N. C., on the construction of its big mill the MANUFACTURERS' RECORD slightly erred in the size of the main building. This will be 131 feet wide and 1004 feet long, not 630 feet long as was stated. The textile equipment will consist of 13,000 spindles, 9000 mule spindles and 300 looms. The company's vice-president and general manager, A. C. Phelps, now district manager at Columbia, S. C., of the Southern Cotton Oil Co., will retire from the latter office about April 1 and remove to Spray. The company's authorized capital is \$1,000,000.

Buys Carded Peeler Yarns.

The Northside Knitting Co. of Norfolk, Va., will increase its equipment from 17 to 30 knitting machines, and contract for the additional machines has been awarded. This will increase the output of the plant from 125 to 250 dozen per day ladies' heavy-ribbed vests, etc. About 80 operatives will be employed. The company is always interested in prices on carded peeler white combed yarn—9s to 12s, single—and manufacturers are invited to note this. The Northside plant was referred to last week.

Sidney Cotton Mills.

The management of the Sidney Cotton Mills at Graham, N. C., will establish a mill to spin the yards for its present equipment of looms. Contract has been

awarded for the erection of an additional building 50x136 feet, two stories high, and in it will be placed 3136 spindles. This equipment will supply the 150 looms in the company's weave mill. Probably about \$60,000 will be the cost of these betterments. Mr. H. W. Scott is president and J. L. Scott, Jr., secretary-treasurer of the company.

The Jonesville Manufacturing Co.

It is stated that the Jonesville Manufacturing Co. of Jonesville, S. C., will make extensive enlargements to its plant, now manufacturing yarns and spinning same into hosiery. The proposition is to increase capital stock from \$175,000 to \$350,000 for the purpose of building a cloth mill, the equipment to be probably 10,000 spindles and 300 looms. The directors have authorized the president, J. J. Littlejohn, to call a meeting of the stockholders to pass upon this proposition.

The Selma Knitting Mills.

The stockholders of the Selma Knitting Mills of Selma, N. C., have elected officers as follows: President, M. C. Winston; vice-president, C. N. Richardson; secretary-treasurer, S. I. Moore; directors, Messrs. A. V. Driver, B. B. Adams, D. B. Oliver and six others. This company was mentioned last week as incorporated with capital stock of \$25,000 to establish hosiery mill.

Reported to Double Mill

It is reported that the Pelham Manufacturing Co. of Pelham, Ga., will double its plant during the summer, and that the machinery required has been purchased. Present equipment is 5648 ring spindles, 100 broad looms, 50 narrow looms, etc.

The Francis Cotton Mills.

Application has been filed for a charter of incorporation for the Francis Cotton Mills of Biscoe, N. C., with a capital stock of \$200,000. Mr. H. A. Page and associates are named as the incorporators.

Textile Notes.

The Walker County Hosiery Mills succeeds the Elizabeth Hosiery Mills of Lafayette, Ga., and not the Lafayette Hosiery Mills, as erroneously stated last week.

At the sale of the Atlanta (Ga.) Cotton Mills last week the property was bid in by the bondholders, the price offered being \$107,000. Messrs. J. J. Spalding, Robert Alston and Charles T. Hopkins acted for the bondholders.

Messrs. John A. Barnhardt and Chas. E. Barnhardt of Concord, N. C., will establish mill for manufacturing all kinds of braids. They have leased a building and site, and will arrange at once for the purchase of the necessary machinery.

The Young-Hartsell Mills Co. of Concord, N. C., has purchased the Coleman Mills, formerly operated with negro labor, and will operate the plant with white labor. The plant will be equipped throughout with the latest improved machinery.

The Crescent Manufacturing Co. of Spartanburg, S. C., manufacturer of knit hosiery, has increased its plant in the knitting, dyeing and finishing departments, these improvements increasing the output about one-third. This company was mentioned last week as having installed 30 additional knitting machines.

The Wylie Mills of Chester, S. C., has filed an amendment providing for an increase in capital stock from \$100,000 to \$150,000. It is not stated for what purpose this additional capital is required, but probably the company contemplates enlarging plant. Present equipment is 20,160 ring spindles, manufacturing yarn.

COTTONSEED

Making Oil Mills Pay.

The seed-crushing season of 1905-1906 in the Southern States has not proved as profitable as the time, energy, capital and ability devoted to the industry in the main would warrant. But a few years ago, when the industry was less known, the returns in oil and cake from a ton of seed, even though the yield were considerably less than at present, produced much more satisfactory returns. But the increase in the number of mills, the competition to obtain seed and at times a surplus stock of oil rushed on the market have conjointly contributed to lowering prices for the manufactured products and consequently reduced the profits. We are not desirous of holding up for admiration or imitation anything the foreigner may have either in machinery or method unless it give promise of tangible results. It cannot be denied, however, that there are many possibilities which present themselves to the cottonseed-oil mills of the South, which, if put into practical use, would render them to a material extent proof against the unprofitable conditions which unfortunately have prevailed during recent seasons. Let us take the English oil miller, who on the whole has less opportunities for money-making than the average cotton-oil mill in the South. Yet he nets a sure profit annually, regardless to an extent of fluctuating market conditions. In the first place, he contrives to operate his mill every working day of the year. He switches his mill off at suitable times from cottonseed crushing to linseed or poppy or other seed crushing, according to the demand and stock of the manufactured products of each on hand. He effects a saving in being able to conduct these various operations with the same superintendent, force of laborers and machinery, and while his taxes, rent and expenses are all the time going on, his income is just as sure and continuous. On the other hand, the American cotton-oil mill will run its presses and machinery for a brief season of the year, during which time its operations, from a standpoint of profit, are problematical, the only period when profits are possible to make, while for the remaining three seasons of the year the plant stands in idleness.

This is the great disadvantage the American cottonseed-oil mills labor under. Taxes, interest on money, pay-roll, all come around with unfailing regularity, but where is the income to meet it? It must come, if at all, out of the doubtful profits of the two or three months' crushing operations of the season.

There can be no good reason advanced why many of the mills in the South cannot be operated the year round with the same or increased staff of men, and to decided advantage in the matter of profit, but also to the community, municipal or agricultural, in which the plant may be located.

The practicability as well as feasibility of operating an electric illuminating plant, an icemaking plant or a fertilizer factory in conjunction with the regular oil-mill business has been demonstrated.

In future issues of the MANUFACTURERS' RECORD I will endeavor to show how a departure from existing lines, embracing any or all of the latter industries, taking each individually, may be made profitable, thus assuring the American oil miller, like the British oil miller, permanently profitable returns. JOHN BANNON.

Oilcake for Cattle.

To the average person connected with the cottonseed-cake and oil-manufacturing business in the United States the extent of the consumption of the former as a

stock-feeding product in Europe and Great Britain is not understood. The trade in this material in Great Britain alone is of enormous proportions. The oil mills of the United States, Canada, South America, France, Germany, Holland, Russia and Egypt pour their surplus cake and meal output continuously into British ports in hundreds of thousands of tons annually. It is deserving of notice that these consignments are, with the exception of those from the United States, invariably in the form of cake, as distinct from meal. In addition to this trade, the British stock-feeder consumes the output of several hundred domestic mills, which, unlike the American cottonseed-oil mill, are operated daily and nightly the year round. Notwithstanding this great consumption, the demand for stock-feeding products in Great Britain is steadily increasing. Cotton cake is recognized in Great Britain at its real value. A suggestion to the effect that cottonseed meal could be used to advantage as a fertilizer, and this in a country where more fertilizer is used to the acre than in any other part of the world, would shock the business instincts of the producer and consumer alike. Oil mills are operated in Great Britain more for cake than for oil. Even a superficial investigation will readily disclose why it is that such a demand exists for cake as a stock-feeding product. Every farmer and dairyman carries in stock a supply of cake in proportion to the number of cattle, horses and sheep he owns. The latter are fed daily with oilcake in varying proportions. In the teeming cities of Great Britain—London, Liverpool, Manchester, Glasgow—thousands of stall cattle, milch cows chiefly, which never see the light of day, subsist largely on oilcake provender combinations, sleek, fat and possessing surprising milk-yielding properties.

A feature of the English and Continental oilcake trade is the "soft cake." The ordinary well-made oilcake is hard, difficult to break, and therefore difficult for stock to masticate. To obviate this drawback scores of mills have been built in Holland, Germany, France and Great Britain for the purpose of buying the domestic or imported cake, mixing cotton and linseed cake, regrinding and repressing them, together with other feeding substances, and without extracting oil turn out a soft and easily-masticated food product in cake form. Not a few of the large oil mills have installed extra and suitable machinery for this purpose, and to meet the demand where hard cake is comparatively difficult to dispose of. A brief description of a patented press invented to meet this class of cake trade, each press turning out 600 cakes per hour perfect in shape and density, requiring only two boys to operate it, will prove interesting. The mechanical arrangement, as will be observed, is very simple, taking up but limited space, with no special foundations required. The description of this ingenious press is an extract from a local publication inspired by the inventor:

"There are three short boxes, each carefully machined out to the exact shape of the cake and fixed together at equal distances from a center post. They are free to revolve around this post; the weight being taken upon hard steel balls, they turn with the slightest touch, a catch stopping and centering them at the proper position. At the three centers formed by these boxes the various operations take place simultaneously, i. e., filling, pressing and extracting. The meal is heated in a kettle carried upon the same baseplate as the press; it is filled into one of the boxes by means of the strickling box, which is worked by hand or by mechanical power as desired, and carefully measured, the attendant placing a plate between each cake.

During the time required for the operation of filling one box the cakes in the second box are being pressed and the cakes in the third box are being extracted. The lengths of the boxes have been carefully adjusted, so that the time required for pressing is equal to the time taken to fill one box, so that no time is wasted. The power required for pressing and extracting the cakes is supplied by a pump which can be fixed to the machine and driven by the same belt as the kettle, thus making the whole self-contained, simple and easily arranged in any building where there is a driving shaft, or the power can be taken from any existing pump or accumulator. The whole of the press is made very strong, and is of the very highest quality and workmanship."

The Texas Cottonseed Crushers' Association will hold its annual convention at Galveston, Texas, on June 18, 19 and 20, following the convention of the Interstate Association, which meets at Atlanta, Ga., in May.

MINING

Iron-Ore Development.

Advices from Anniston, Ala., state that Messrs. G. B. Randolph, Joe Saks, Amory Quinn, N. F. Johnston, Jr., and others, who own Chalybeate mountain, in the western part of Calhoun county, are preparing to make extensive developments of iron ore. It is stated that the property contains ore of a high grade, and, it is estimated, will produce several million tons. Surveys have been made by the Louisville & Nashville Railroad and the Seaboard Air Line Railway to the property, both of which lines will probably be constructed if sufficient ore tonnage is developed. Mr. C. P. Nunnelly, who owns a water-power near the property, has had surveys and tests made by the Ludwig Engineering Co. of Atlanta, Ga., and will develop the power to use in connection with washers and for other purposes. It is estimated that 365 horse-power can be developed.

To Develop Zinc Lands.

Messrs. Charles Hayes Brown and J. R. Shell of Knoxville, Tenn., have closed negotiations with the Emma Zinc Co. for the sale of 60 acres of zinc lands and giving an option on 400 acres additional. The company which will develop the property is now in process of organization, with a capital stock of \$50,000. Its president will be Augustine Signaigo and general manager W. D. Ham of St. Louis. The property is known as the Fowler lands, and is located on Fork creek. Shipments of ore will go to a smelter in Virginia or to Joplin, Mo.

To Develop Coal Lands.

A new company capitalized at \$50,000 has been organized with Messrs. J. R. Sampson, president; W. F. Nicholson, vice-president, and Mr. Tucker, treasurer, all of Middlesboro, Ky., and has leased and will develop about 600 acres of coal lands in Lee county, Virginia. The property was leased from the Black Mountain Coal & Land Co. of Bristol, Tenn.

Bought Controlling Interest.

It is announced that the Anheuser-Busch Brewing Co. of St. Louis, Mo., has purchased a controlling interest in the Black Band coal mines in Kanawha county, West Virginia. The purchase price of the property is said to have been about \$250,000, and the output will be used by the Anheuser-Busch Brewing Co. in its own operations.

A board of trade has been organized at Douglasville, Ga.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

MAKING CYPRESS TANKS.**The Important Industry of G. M. Davis & Son at Palatka.**

[Special Cor. Manufacturers' Record.]
Palatka, Fla., March 5.

While investigating the industrial resources of this thriving city my attention was directed to the large plant of Messrs. G. M. Davis & Son, who manufacture cypress tanks, shipping this product to all parts of the world. The firm is at present completing a contract for 132 cypress-wood tanks, in capacity from 5000 to 100,000 gallons, for the Florida & East Coast Railway. These tanks are for use in the great engineering and solid masonry work now proceeding which will link the keys off the southern coast of Florida, connecting the mainland with Key West. The facilities of the Davis plant and the capability of its management will be better understood when it is stated that this big order was placed less than 100 days ago and the last tank will have been completed and shipped within that period. An order was received a few days ago for a 50,000-gallon tank, and this will be shipped within a week from receiving the contract to the purchaser, the Tennessee Copper Co., at Isabella, Tenn. These shipments have in no way interfered with the regular operations of the firm in supplying its trade, shipments being made to every State in the Union, as well as to Great Britain, the Continent, Asia and South America.

With railroad and water facilities for shipping purposes at hand, a practically inexhaustible supply of the best grade of cypress timber in forests within sight of the plant, the additional advantage of a thoroughly modern mechanical equipment and general plan of operation, G. M. Davis & Son are enabled to fill orders promptly and on a reasonable basis of cost to the purchaser. The latest type of woodworking machinery is in use, operated by a force of nearly 60 men, skilled helpers, the entire plant being under the personal supervision of Mr. Howell A. Davis, owner of the plant, stock, railroad track, grounds and structures thereon. Mr. Davis is the son of the late G. M. Davis, founder of the enterprise, and for the past 10 years has personally conducted the business. To his business training and the methodical system he has inaugurated may be ascribed the enterprise's development and present high standing. During 10 years the plant has been duplicated in capacity several times. Railroads, tanneries, steam plants and other purchasers of tanks are supplied with any capacity of tank that cypress wood can be used for. Besides his connection with this big industry, Mr. Davis is one of Palatka's most enterprising citizens, a member of the board of aldermen and treasurer of the Board of Trade.

JOHN BANNON.

Forestry Conference.

At the interstate forestry conference held at Charlotte, N. C., on the 3d instant for the purpose of creating a sentiment in favor of the passage of such legislation as will result in the establishment of national forest preserves in the Appalachian mountains and also the establishment of State forestry associations, there was a number of representative men from several Southern States in attendance. Governor Glenn of North Carolina presided and delivered a short address. Other speeches were made by Messrs. Gifford Pinchot, chief forester of the United States; Alfred Akerman, State forester of Massachusetts; Alfred Gaskill, United States forestry bureau; Governor Terrell of Georgia; E. H.

Newell, chief hydrographer of the United States; A. T. Smythe of Charleston, S. C.; J. F. Hayes of Toxaway, N. C.; Dr. Gil Wylie of New York; Dr. G. A. Schenck, chief forester of the Biltmore estate, Asheville; Prof. Joseph Hyde Pratt, University of North Carolina; F. C. Bates, New York; W. S. Lee, Jr., Charlotte; Prof. Collier Cobb, University of North Carolina; J. Elwood Cox, High Point, N. C.; H. D. House, professor of botany, Clemson College, South Carolina. All urged the importance of preserving the Southern forests. Resolutions urging action by Congress were adopted.

Big Deal in Pine Lands.

It is announced that the Natalbany Lumber Co. of Rock Island, Ill., and Natalbany, La., has acquired 30,000 acres of pine lands in St. Helena and Tangipahoa parishes, Louisiana, from Day Bros. The transaction, which is said to involve about \$1,000,000, is understood to have been backed by the Weyerhaeuser interests of Rock Island, Ill., and Davenport, Iowa. It is stated that the Natalbany Lumber Co. will erect a double band-saw mill at Natalbany to have a daily capacity of 150,000 feet, beside establishing large mills in St. Helena parish. A railroad will be constructed connecting Greensburg, La., with the line of the Illinois Central Railroad, and another connection made between a standard-gauge road of the Day interests extending from Natalbany to Hillsdale with a road of the Kent Lumber Co. extending from Kentwood to Greensburg. It is stated that the line of the Kent Lumber Co. will be made standard gauge. The purchasing interests intend to establish several towns along the line of the proposed railroad.

Wholesale Lumbermen's Convention.

The fourteenth annual convention of the Wholesale Lumbermen's Association of the United States is in session this week in Washington, D. C. Thirty-two States of the United States and Canada are represented in the membership, which includes wholesale dealers and manufacturers. The business of the association for last year amounted to 13,450,000,000 feet of lumber, valued at \$300,700,000. Among matters of special interest which will be considered is the suit filed by the lumbermen against the railroads of the country before the interstate commerce commission. It is known as the car-stake equipment complaint. Officers of the association are Messrs. Lewis Dill of Baltimore, president; J. M. Hastings, Pittsburg, Pa., first vice-president; C. H. Prescott, Jr., Cleveland, Ohio, second vice-president; Frederick W. Cole, New York, treasurer.

Improvements to Be Made

The Bristol Door & Lumber Co. of Bristol, Va.-Tenn., and Boston, Mass., has decided to make extensive improvements to its plant at Bristol, installing new machinery and materially increasing the capacity of its band and planing mills. It decided also to remove its general offices from 147 Milk street, Boston, to Bristol, at the same time electing new officers as follows: W. O. Came of Bristol, president; John C. Anderson, vice-president; H. P. Wyman of Johnson City, Tenn., secretary and treasurer. The products of the Bristol Door & Lumber Co. are poplar and chestnut doors and general mill-work supplies.

Big Lumber Contract.

The contract for supplying timber and lumber to be used in the construction of bulkheads on the canal to connect the mouths of the Neches and Sabine rivers in Texas with the waters of Haylor's bayou has been awarded by the Southern Bowlers Dredging Co., which has the contract

for constructing the canal, to the Keith Lumber Co. of Beaumont. Contract for piling has been awarded to a company at Texicola, where it will be treated with creosote before using. The bulkhead will extend three-fourths of a mile, and will require about 256,000 feet of lumber, which is the amount of the contract.

Big Timber Deal.

One of the largest timber deals that has been consummated in that section for some time is the purchase of a large tract of timber land in Wise county, Virginia, by the Tug River Lumber Co. of Bristol, Va.-Tenn. The property was sold by J. B. Adams of Tazewell, Va., and, it is said, will cut about 20,000,000 feet of merchantable lumber, principally oak, poplar, chestnut and other hard and soft woods. The Tug River Lumber Co. will construct two large band mills, to employ about 300 men in their operation.

Will Erect Saw-Mill.

The MANUFACTURERS' RECORD is informed that the Little River Lumber Co. of Townsend, Blount county, Tennessee, will erect a frame saw-mill 60x140 feet, with additions 28x30 and 32x140 feet. The plant will have a capacity of about 100,000 feet per day, manufacturing hardwoods, white pine, hemlock, etc., and represent an investment of \$60,000. Officers are W. H. McCormick, president; A. W. Lee, vice-president; W. B. Townsend, general manager, and John W. Wrigley, secretary and treasurer.

Desires Timber Tracts.

Evidencing the general demand for timber of all kinds is the information that Mr. Edmund L. Magner, 998 Ellicott Square, Buffalo, N. Y., desires a tract of hard maple, for which he has customers waiting. He also wants a tract of hickory for wagon stock and a tract of long-leaf yellow pine in Louisiana, Texas, Alabama, Florida or Mississippi, beside a large tract of first-class white oak in Mississippi, Louisiana, Tennessee, Kentucky, Arkansas or Missouri, and a good tract of hemlock and spruce.

1200 Boxes Wanted.

Sealed proposals will be received until March 30 by A. McDowell, clerk of the House of Representatives, Washington, D. C., for 400 boxes, to be made of first quality California redwood, thoroughly seasoned and kiln-dried, free from all defects, such as sap, shakes, knots, etc. Proposals are also wanted for 800 boxes, to be made of first quality 4-4 thickness white pine, seasoned and free from defects as above. Specifications have been prepared.

Kirby Lumber Co.'s Mills.

The new saw-mill at Brownell, Texas, of the Kirby Lumber Co. of Houston has been finished, and with mills at Silsbee, Call and other points will be put in operation on "24-hour and night runs, increasing the production of the plants of this company about 500,000 feet per day. Notwithstanding rising prices, there is an increasing demand for lumber, and the several mills of the Kirby Lumber Co. are well equipped to meet the requirements.

Large Timber Deal.

Negotiations have been concluded at Elkins, W. Va., for the sale of the plant and timber holdings of the Hoover-Dimeling Lumber Co. at May to Messrs. Neil & Gilfillian of Brooksville, Pa. It is stated that there are about 4000 acres of uncut timber on the property. The purchase price is said to have been \$450,000.

Operate Door and Sash Plant.

A controlling interest in the plant of the Hampton Door & Sash Co. of Hampton,

Va., has been secured by Thomas E. Stagg of Richmond, who will continue its operation. Mr. R. F. Slaughter, who has been connected with the enterprise for several years, will serve in the capacity of business manager.

Wants Lumber Cut.

Mr. J. M. Wolford of 108 Plume street, Norfolk, Va., wants to let contract for cutting 3,000,000 feet of pine lumber near Norfolk, or he will sell timber on the stump. Correspondence is invited.

Lumber Notes.

The saw-mill plant at Lemonville, Texas, of the Alexander Gilmer Lumber Co. cut 2,500,000 feet of lumber last month. A planing mill has recently been installed at this plant.

The Beaumont Terminal Railway has awarded contract to the Mitchell-Critten-den Company of Texarkana, Texas, for 20,000 crossties to be used in the construction of terminals at Beaumont.

A report from New Orleans, La., announces that the Bradley-Ramsey lumber interests at Lake Charles, La., have been purchased by the Long-Bell Lumber Co. of Kansas City, Mo., and options have been secured on the Powell holding.

The car situation in the Lake Charles (La.) lumber district is improving, and, with the mills in good condition and running smoothly, manufacturers anticipate that by the end of the present month shipments will have reached 40,000,000 feet.

It is announced that the Church Cooperative Co. of New York will close a contract with the Norfolk Veneer Co. of Norfolk, Va., for about 20,000,000 barrel staves which are to be used in the construction of 1,000,000 barrels in which to pack New York State apples.

The Southern Lumber Corporation of Baltimore, Md., has been incorporated with a capital stock of \$500,000 to purchase and develop timber lands, manufacturing lumber, etc. The incorporators are Messrs. Frank S. Fenagen and J. D. Virgin of the Canton Lumber Co. of Baltimore, John H. Berryman, James R. Clarke and H. C. McClosker, all of Baltimore. Details as to the contemplated plans and operations of the Southern Lumber Co. will be announced later.

Industries for Navasota.

The Industrial Club of Navasota, Texas, is laboring to induce the location of industries in its community. It points out that in close proximity to Navasota are good clay and sand for the manufacture of brick and glass, a great variety of pine and hardwood, large deposits of lignite and coal and a fine prospective oil field. Navasota is at the intersection of five railroads; it is in the center of a rich agricultural section with an abundant supply of water, and is within from 30 to 45 miles of Brenham, Chapel Hill, Somerville, Bryan, Madisonville, Huntsville, Monroe and Hempstead, and within 100 miles of Houston, Austin, Waco, Corsicana, Palestine and Beaumont.

The Anderson Chamber of Commerce is circulating in convenient pamphlet form articles reproduced from the Anderson Mail giving facts about the progress of the city in industry, banking, building, etc., during 1905, the most prosperous year in its history.

The Geological Survey of Alabama, Eugene Allen Smith, State geologist, has issued a revised map of the southeastern part of the Cahaba coal field.

The Black Mountain Coal Land Co. of Bristol, Va.-Tenn., has leased 700 acres of coal lands to the Dominion Coal Co., composed of Ohio capitalists.

MECHANICAL**Modern Oil Engines and Irrigation.**

By CARL W. WEISS, A. M.

In view of the remarkable development in all branches of irrigation and engineering and the great increase in oil production throughout the world, it is quite natural that the attention of the engineers is

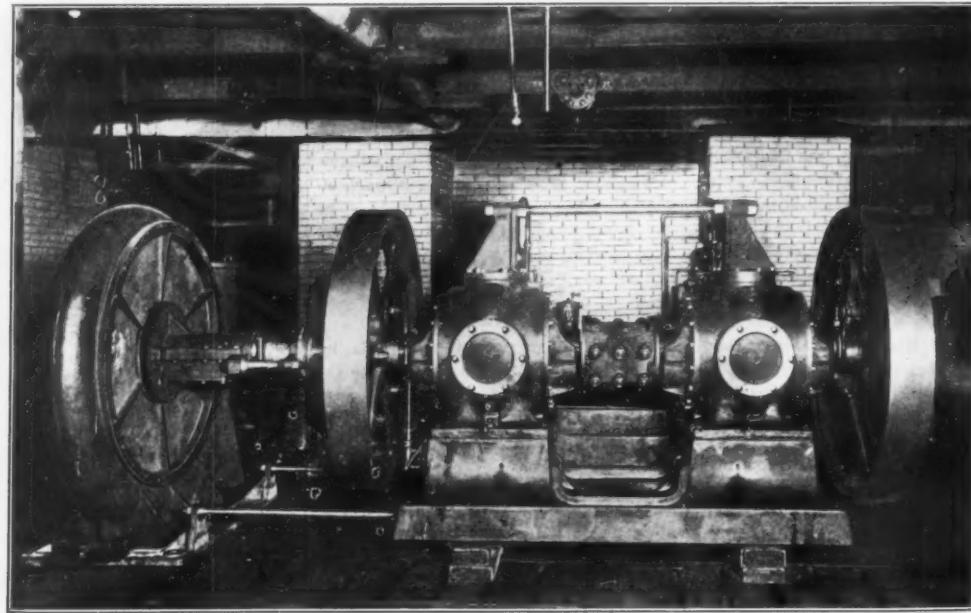
The Manufacture of Stucco.

The manufacture of plaster of paris or stucco is one of the many American industries which is advancing favorably. It includes the use of certain improved labor-saving machinery and the adoption of processes economizing the cost of production and improving the character of the product. Mr. C. O. Bartlett, president of

it will set. For ordinary plaster work but one boiling is required; for fine work and plaster of paris two boilings are required.

"In this calcining kettle is where the mechanical change takes place. After it is sufficiently calcined or boiled, as it were, it should be immediately emptied and placed into hoppers or bins made of brick or iron, after which it is ready to be con-

bins, conveyors, elevators and the power. If it be desired to make this material into wall plaster, which is now very largely used most everywhere, it will require, in addition to the above-mentioned machinery, one sand dryer for drying sand and a hair picker for picking the hair and necessary dry mixers for thoroughly mixing the different materials."



A 70-HORSE POWER MIETZ & WEISS DOUBLE-CYLINDER OIL ENGINE DIRECT CONNECTED TO A CENTRIFUGAL PUMP.

directed to an economical power for operating centrifugal pumps which are most suitable for irrigation. A moment's reflection reveals the happy coincidence of these ideal conditions. The necessity of irrigation and the ability to irrigate profitably make a fortunate combination of circumstances. The landowner in arid regions is now in a position to control his crops. The old-time farmer may retire and the engineer solves the problem. The extent to which irrigation can be practiced, quoting from an authority on the subject, is enormous. The total area irrigated in India is about 40,100,000 acres, in Egypt 6,000,000 acres and in the United States about 8,000,000 acres. There is invested in irrigating works in the United States \$67,770,000, and in India \$338,000,000.

The abundant production of fuel or crude oil suitable for large oil engines makes the conditions in the United States more favorable to power irrigation than in any other country. With a cost of four cents per gallon for this fuel the cost per horse-power is reduced to a minimum of one-half cent per hour, or \$3.50 for a 70-horse-power plant pumping 3,000,000 gallons in 10 hours.

In view of these facts the accompanying illustration is of interest, showing a 70-horse-power Mietz & Weiss double-cylinder oil engine direct coupled to a centrifugal pump as it appears on the testing floor at 128-138 Mott street, New York. Six of these combinations of the belted type were recently furnished to F. G. Niedringhaus, one to Bachrich & Co. of Vienna and one to Markt & Co. of Java, all for irrigating purposes. The combination shown has a capacity of 3500 gallons per minute against a 45-foot head at 250 R. P. M. and an efficiency of 70 per cent. The engines are tested with fuel oil and deliver a brake horse-power of .84 pound of oil per hour. The pump has a 15-inch suction and 12-inch discharge, and its maximum capacity is 5000 gallons per minute.

Mr. August Mietz of 128 Mott street, New York, builds the engine in reference, as well as others of different capacities.

the C. O. Bartlett & Snow Company of Cleveland, Ohio, has submitted to the MANUFACTURERS' RECORD a treatise on the manufacture of plaster of paris which will doubtless be of interest to many of our readers. Mr. Bartlett says:

"In manufacturing plaster of paris or stucco the gypsum rock should be crushed down with some first-class crusher—jaw crusher preferred—to about one inch cube. As this material is mined in large cakes, the opening should not be less than 20x12 inches.

"The crushed gypsum rock should then be dried in a rotary direct-heat dryer. The products of combustion used in drying this material should not pass through the material on account of the danger of coloring it; that is, the drying should be done on the outside of the dryer only. The size of the dryer must depend upon the capacity required, and there should be connected with the dryer a good dust-settling chamber to save the dust which is available.

"After the gypsum is thoroughly dried it should be again thoroughly crushed on an ordinary pot or bowl crusher.

"It should then be ground to about 80 mesh fine. French buhr stones are mostly used, and are no doubt just as good as any other devices, although there are other ways for grinding used in different places.

"The ground gypsum should then be passed into a calcining kettle, usually eight feet in diameter and eight feet high, with gears, flues, fire front, grates and doors; also with upright shaft and stirrers near the bottom driven with heavy gears above. The ground material is slowly passed into the calcining kettle, when it soon begins to boil. More material is gradually added until the kettle is full. From the gypsum rock that has been crushed and dried thoroughly a batch can be calcined in about one and one-half hours, the time depending very much upon the dryness of the gypsum rock, also the quality of the finished product.

"The material contains enough moisture to thoroughly boil it for a short time after it comes to a dead state, then it will boil a second time, and in some cases even a third time. The more it boils the quicker

veyed and elevated to storage bins, from which it is packed into barrels or sacks ready for market. As soon as the kettle is emptied another charge should be immediately put in.

"To manufacture, say, 100 tons of plas-

New Sullivan Plug Drill.

The accompanying illustration, Fig. 1, shows a photograph of a test of the new Sullivan plug drill which is being manufactured by the Sullivan Machinery Co. of Chicago, Ill., and Claremont, N. H., on the Innes & Cruickshank quarry at Barre, Vt. This test, held last August, is said to have resulted in exceeding all records for plug holes. In one hour the drill put in 160 plug holes five-eighths inch in diameter by three inches deep. It is stated the best previous record was 60 holes. Mr. Robert Arthur, one of the company's regular quarrymen, handled the drill, which used 14 cubic feet of free air per minute at 100 pounds pressure and weighs 20 pounds. Both vertical and horizontal holes were bored during the test.

Fig. 2 shows the drill separately. It uses a solid steel rotated by a hand wrench, and drills holes up to 12 inches in depth. A blower hose attached to the exhaust opening on the cylinder automatically cleans the hole of dust. The cylindrical throttle valve is placed in the drill head, and is opened by pressure of the handle upon the head when drilling is begun. On releasing the handle the throttle is closed by air pressure. This mechanism will not get out of order, as there is no trigger to be worked by the fingers.

The valve, valve block, drill-shank bushings and cylinder are made of hardened tool steel and are warranted against



FIG. 1.—NEW SULLIVAN PLUG DRILL.

ter a day, it will require the following machinery:

"A crusher for crushing gypsum rock down to one-inch cubes, estimated cost \$1000; one direct-heat dryer 48 inches diameter, 27 feet long, together with dust-room, estimated price \$2500; one pot or

breakage. All parts are made perfectly interchangeable, so that in case of accident new parts may be put into the machine without delay or trouble.

Several months have been spent by the company in perfecting and systematizing methods of manufacture, and it is now



FIG. 2.—NEW SULLIVAN PLUG DRILL.

bowl crusher for again grinding the material after drying fine enough to be ground with buhr stones, estimated price \$300; four French buhr stones for grinding, estimated price \$300 each; two calcining kettles, estimated cost \$1200 each. Besides this, it will require necessary hoppers,

confidently believed by them that the Sullivan plug drill is superior in point of drilling speed and durability, and fit to take its place with the Sullivan rock drill, the Sullivan channeler and the Sullivan air compressor.

Bulletin 51-C, just issued, describes the

drill fully, and may be had on application to the Sullivan Machinery Co., Claremont, N. H., or Chicago, Ill., or to the nearest branch office.

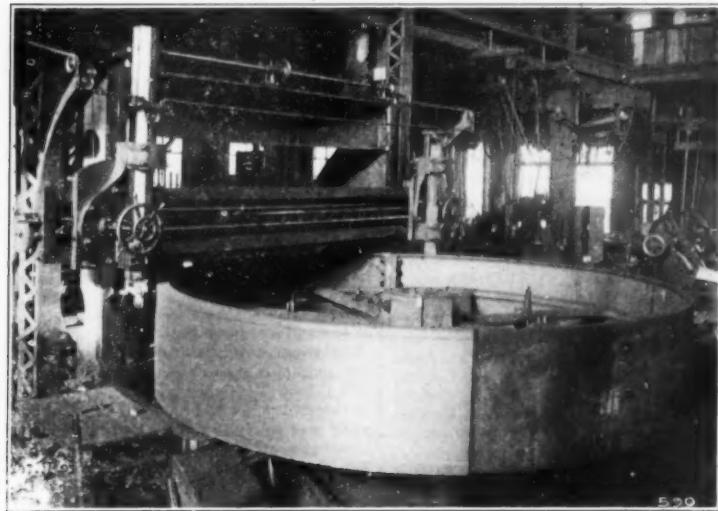
The company offers to send this drill to reliable parties on 15 days' trial, with the privilege of returning it at the end of that time if unsatisfactory, the company in this event paying shipping charges both ways.

Casting Half of a Band Wheel.

An interesting piece of shop work was recently completed by the H. W. Caldwell

hub and arms in the ordinary way and poured. After the preliminary work of cleaning, chipping, drilling, facing, etc., had been done the new and the old halves were bolted together and put on the 20-foot boring mill. The face was then finished and the wheel arranged for the boring of the hub.

The diameter of the wheel is 18 feet, the face 42 inches, the bore 15 inches and the weight 27,806 pounds. The remarkable part of the whole process, and that which shows the work to have been exceedingly



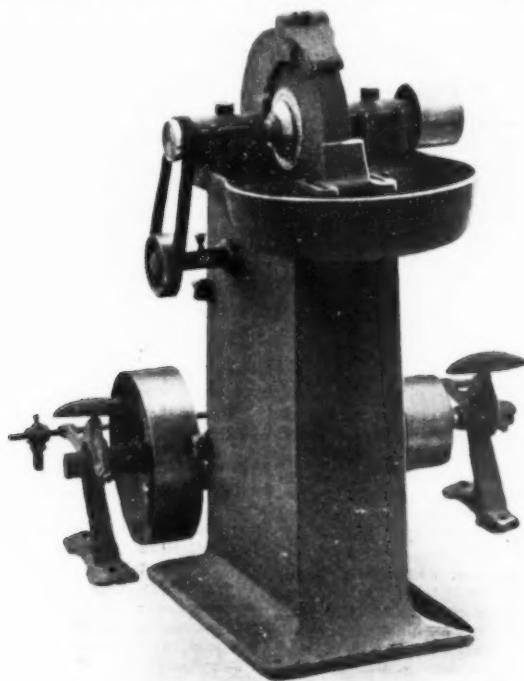
CASTING HALF OF A BAND WHEEL.

& Son Co. of Chicago. This company cast and finished a single half of the large split band wheel shown by the accompanying photograph. An entire band wheel was originally made by another foundry, but in putting the wheel in place on the crankshaft of the engine one of the halves was accidentally dropped into the pit and broken. It was a planed-joint wheel, and such wheels are, of course, always cast in separate halves or sections; but it is unusual for one foundry to cast a half to

well done, is that the finished wheel was found to be only 94 pounds out of balance, the new half being the lighter of the two.

The New "Sterling" Tool Grinder.

"Sterling" tool grinders have long furnished an argument why it no longer pays to use grindstone. The new tool grinder illustrated herewith emphasizes the argument. It is simple in construction, and cannot get out of order. It does its work



THE NEW "STERLING" TOOL GRINDER.

match another half made by some other foundry of whose cupola mixture or practice nothing is known. Inasmuch, however, as the order for a new half was given the Caldwell Company, it was promptly accepted. The company then analyzed the metal in the old half, figured out a mixture to give the same shrinkage, molded the new half in loam, cored out the

perfectly. It is easily cleaned. Its manufacturer says the grinder requires less attention than a grindstone, and will do the same amount of work in less than one-quarter the time.

Note the deep water bowl; no pumps or anything to get out of order, requiring time for attention and repairs; an internal device sprays water upon the wheel when

machine is in operation; at other times wheel is kept dry. The grinder can also be used dry if preferred.

The size of the emery wheel is 14x2 inches; spindle is of the best steel, 1½ inches in diameter in the bearings; countershaft has 14x3-inch driving pulley and 8x3-inch T. & L. pulleys, and should make 325 revolutions per minute.

The Sterling Emery Wheel Manufacturing Co. of Tiffin, Ohio, manufactures the new "Sterling" tool grinder.

A Big Concrete-Block Building.

Railroad men, and car builders in particular, are intensely practical people. Any material which passes inspection and is accepted by the car builder may be safely accepted by others. This refers not only to material used in the construction of various forms and styles of street and railway cars, but of construction material in general. An accompanying illustration presents a view of one of the three new car shops in course of construction at Dayton, Ohio, for the Barney-Smith Car Co. The building shown is some 800 feet long by 200 feet wide and 45 feet high, constructed entirely of about 60,000 concrete blocks made on Winget machines.

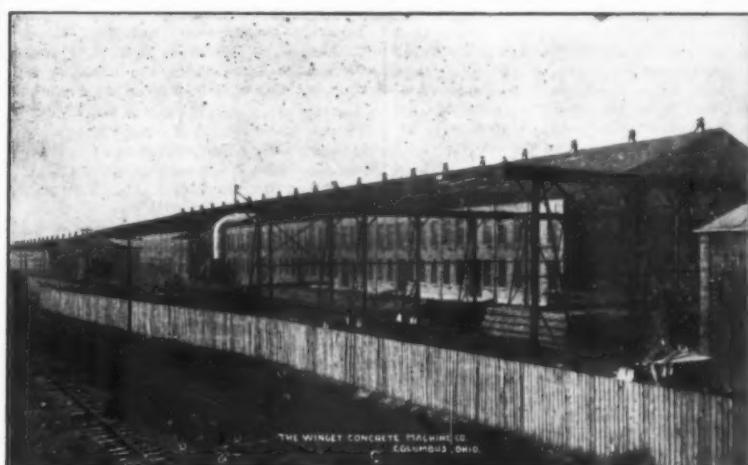
The main consideration in the erection of these buildings was solid and enduring construction, fireproof and damp-proof walls, as well as prompt and expeditious work in preparing the buildings for occupancy. Messrs. Jacob Gabler & Sons, the contractors, have met these obligations.

travel of the machine, so that each spindle or finger remains stationary, as far as the plant is concerned, being withdrawn from the plant in the rear of the machine, while still rotating, until it reaches a tripper-bar, where the fingers cease to rotate. Being drawn through this tripper-bar, the cotton is released and thrown by a spiked roller onto an elevator belt, which deposits it in the basket. The finger then passing on forward, is translated to an extended position and carried directly into the plant, beginning to rotate the minute the point enters the plant."

New Orleans Sugar at Pittsburg.

There arrived last week at Pittsburg, Pa., two model barges laden with refined sugar from New Orleans, the first in a quarter of a century to come thus by water, according to the *Pittsburg Dispatch*, which says:

"Pittsburg as a distributing point for Southern freight now looms up with possibilities only depending on the improvement of the streams. Conservative river men predict that the next year will see Pittsburg's prestige as a water port advanced wonderfully. Not only sugar will come by water, but many other products, such as cotton, tobacco, cottonseed meal, hemp and molasses. Cheap freight charges are the principal inducements attracting Southern products to Pittsburg. The two barges which came in yesterday had departed from Pittsburg some weeks ago, and belong to the Monongahela River Con-



A BIG CONCRETE-BLOCK BUILDING.
It is 800 Feet Long, 200 Feet Wide and 45 Feet High.

The Winget Concrete Machine Co., Columbus, Ohio, feels highly complimented that its machines were used to prepare blocks for this work, which it believes the largest ever undertaken in the history of concrete-block construction.

Mechanical Cotton-Picking.

For some time the American Cotton-Picker Co. of Pittsburg, Pa., has been experimenting with the Campbell Cotton-Picker with a view to perfecting the machine. With this object the machine has been subjected to most strenuous work and has been brought to a condition eminently satisfactory to its owners and to gentlemen who witnessed a test in Louisiana. It is claimed that at an expense of about \$10 from 5 to 10 acres of cotton may be picked in a day by the machine, described as follows:

"The cotton-picker is about the size of a small automobile, having a nine-foot base. The machine is provided with arched axles for straddling the rows of cotton plants. The picking mechanism is arranged in two drums, one on either side of the row, from which project fingers or needles, which revolve, engaging the open cotton. The backward travel of these fingers is compensated for by the forward

solidated Coal & Coke Co. More barges of the same company are now en route similarly laden. In recent years Southern trade has fallen off largely because of lack of water in the channels. Boats would frequently come up the Ohio as far as the Merrill dam, below Rochester, where they would have to tie up, but now, due to the recent improvements, when boats get as far as Merrill they can navigate the rest of the way to Pittsburg."

The *Dispatch* quotes Capt. James A. Henderson as follows:

"The rivers are coming into their own again. Pittsburg's facilities are already great for the handling of freight by water, and soon will be greatly increased, and there is no reason why Pittsburg should not be a distributing point for freight from the South, not only from New Orleans, but from all the points on the Mississippi river. When the new Southside terminal warehouses are completed their advantages will be increased, as the boats can be unloaded and without delay their cargoes can be put on board cars for shipment anywhere in the country."

The Commercial Club of Fort Mill, S.C., has been organized by the business men of that town.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

BALTIMORE BUILDING NOTES.

Building operations in Baltimore in connection with the reconstruction of the area devastated by the fire of two years ago having reached a normal stage, the Manufacturers' Record has discontinued the special columns for such data. Today and hereafter this building news will be found in alphabetical order under heading of BUILDING NOTES, while factory and general industrial items for Baltimore can be seen under the heading of MARYLAND.

ALABAMA.

Anniston—Iron Mines.—Reports state that G. B. Randolph, Joe Saks, Armory Quinn, N. F. Johnston, Jr., and others are arranging for the development of iron-ore mines in Calhoun county.

Anniston—Water-power Development.—It is reported that C. P. Nunnelly will develop a water power near Anniston which he owns. It is stated that about 365 horse-power can be obtained.

Anniston—Foundry and Machine Shop.—White Foundry & Machine Co. is erecting frame building 60x50 feet and will have a capacity of six tons of castings per day, which will later be increased; office, Noble and E streets.

Atmore—Mill Company.—W. M. Carney Mill Co. has been incorporated with \$10,000 capital stock by Alice C. Peavy, H. H. Patterson, Laura C. Bruce and others.

Birmingham—Iron Furnaces and Mines, etc. It is reported that C. P. Perin of New York, N. Y., and Julian Kennedy of Pittsburgh, Pa., engineers, are making a survey of the properties of the Tennessee Coal, Iron & Railroad Co. in the Birmingham district, and will report on the necessary improvements at the various plants and the most profitable expenditure of the money recently set aside for this purpose. It was reported in February that at a meeting of the directors of the company on January 31 the capital stock was

increased from \$23,000,000 to \$30,000,000, the increase to be utilized for improvements; general offices, Birmingham, Ala.; New York office, 100 Broadway.

Birmingham—Coal Mines.—Stith Coal Co. has been incorporated with \$25,000 capital stock by Paul J. Stith, A. B. Aldridge, Jr., J. W. Dinnick and C. W. Buckley.

Columbia—Naval Stores.—Chartered: Columbia Naval Stores Co., with \$5000 capital stock, by J. S. Sherman, O. H. Sheffield, W. A. Sheffield and others.

Elmoro—Lumber Company.—Cohan-Goldberry Lumber Co. has been incorporated with \$50,000 capital stock by Charles Cohan, A. L. Goldberry, J. N. Morris, E. M. Williams and others.

Florala—Hardware and Furniture Company.—J. W. Barns, J. A. Hemby, C. M. Powers and J. D. Bailey have incorporated the Lake Hardware & Furniture Co. with \$15,000 capital stock.

Florence—Concrete-block Factory.—W. N. Graham is reported as to establish plant for the manufacture of concrete building blocks. It is stated that machinery has been purchased.

Florence—Land Improvement.—Belle Meade Land Co. has been organized with \$250,000 capital stock for the development as town site of 2200 acres of land near Florence.

Guntersville—Development Company.—H. C. Henderson, D. G. Henderson and others have incorporated the Henderson Land & Development Co. with \$100,000 capital stock for general development purposes.

Jackson—Ice Factory.—Jackson Ice Factory has been incorporated with \$20,000 capital stock by W. C. Fricker, J. W. Hyer, J. C. Hicks and J. E. Fricker.

Lineville—Development Company.—G. A. Mattison, C. G. Kershaw, D. L. Lewis and others have incorporated the Lineville Development Co. with \$25,000 capital stock.

Marion Junction—Cotton Gin, etc.—Marion Junction Warehouse & Ginning Co. has been organized with \$10,000 capital stock by H. P. Randall, Smith & Gilmore and associates to establish cotton gin with 2000 bales capacity, erect cotton warehouse, etc.

Mobile—Lumber Company.—Chartered: Mann Lumber Co., with \$15,000 capital stock, by Robert J. Mann, Guy W. Atwood, E. Daling, Jr., and others.

Mobile—Mattress Factory.—Hodges Mattress Co. has been incorporated with \$5000 capital stock by George F. Hodges, Charles F. Urchenbach, R. T. Ervin and J. N. McAleer.

Orrville—Canning Factory.—A company has been organized with R. B. Hare, president; J. H. Ellis, vice-president; Hal Marshall, secretary; J. E. Dunaway, treasurer, and G. W. Burt, manager, to operate fruit and vegetable cannery. About \$6000 will be invested in building and equipment. Machinery has been ordered.

Sheffield—Land Improvement.—A company has been organized with \$100,000 capital stock for development purposes. J. W. Worthington is president; J. C. Ryan is secretary, and W. S. Hatch, treasurer.

Woodward—Iron Furnaces, etc.—The Woodward Iron Co. has filed notice of increase in capital stock from \$2,000,000 to \$3,000,000, as recently authorized by the stockholders. It is reported that the additional capital will be expended to improve and enlarge the present plant, build additional furnaces and possibly establish a steel plant and pipe works. No authoritative statement has been made, but particulars will doubtless be made public in due time. J. H. Woodward, Birmingham, is president.

ARKANSAS.

Berryville—Land Improvement.—W. H. Lewis, J. W. Freeman, W. P. George, B. H. Blockson, A. S. Bobo and associates have incorporated the Berryville Improvement Co. with \$25,000 capital stock.

Hot Springs—Brick Works, Pottery, etc.—Hot Springs Brick, Tile & Pottery Co. has been organized with Wm. Francis Keates, Owensboro, Ky., president and manager; Rev. G. H. Moss of Cannelton, Ind., vice-president, to erect dry press-brick plant with a daily capacity of 40,000 bricks; two-story brick building to be equipped for the manufacture of art pottery and tile. About \$75,000 will be invested in buildings and equipment. The Interstate Clay Products Corporation, of which Mr. Keates is president, was mentioned last week as interested.

Hot Springs—Oil and Gas Wells, etc.—Hot Springs Exploration Co. has been incorpo-

rated with \$25,000 capital stock to bore for oil, gas and water. Dr. T. B. Rider is president; R. G. Davies, secretary, and F. J. Mobbs, treasurer.

Lonoke—Saw-mill.—It is reported that Dr. C. W. Hine of Stanton, Iowa, has purchased 1000 acres of timber land and will install saw-mill for its development.

Paris—Lumber Mill.—Chartered: Bartsch-Waddell Lumber Co., with \$10,000 capital stock, by August Bartsch, R. D. Waddell, Joseph Bartsch and E. Schneider.

Pocahontas—Drilling and Mining Company. E. G. Schoonover, R. B. Hamil, W. H. Skinner, W. T. Bispham, J. W. Shannon and associates have incorporated the Schratz Drilling & Mining Co. with \$50,000 capital stock.

Texarkana—Oil Wells.—The Development Company has been incorporated with \$500,000 capital stock. J. D. Cook is president; F. W. Offenhauser, vice-president, and J. F. Black, secretary-treasurer. Contract has been let for drilling well within the city limits.

DISTRICT OF COLUMBIA.

Washington—Engineering and Contractors' Supplies.—The Ricketts Engineering Co., 621 13th street N. W., has been incorporated with capital stock of \$15,000 to conduct a general engineering business and act as manufacturers' agent by Murray C. Ricketts, Charles M. Ricketts and George C. Shinn. This company succeeds the firm of Royce & Ricketts.

Washington—Iron and Brass Foundry.—Thomas Somerville Company, 316-322 13th street N. W., has been incorporated with capital stock of \$80,000 to conduct iron and brass foundry and manufacture plumbers' and steamfitters' supplies by Thomas Somerville, Wm. H. H. Somerville, Chapin Brown, Charles A. Douglas and George W. Taylor.

FLORIDA.

Jacksonville—Marble and Stone Works.—Southern Marble & Stone Co. has secured site at Springfield (a suburb of Jacksonville) on which to erect plant; machinery and tools have been purchased. It is proposed to install steam or electric power equal to 30 horse-power.

Jacksonville—Purifying Box.—Citizens' Gas Co. will install a reinforced concrete purifying box during the spring.

Jacksonville—Sheet-metal Works, etc.—Florida Cornice & Roofing Co. will increase the working capacity by installing a power system. It has not been decided whether steam or electricity will be used.*

Jacksonville—Turpentine Stills.—Pure White Turpentine Co. will build a number of additional stills for turpentine in the pine belt.

Palatka—Ice Factory.—Palatka Ice Factory, L. C. Canova, manager, is considering increasing the tank capacity, and will change the form of ice cans. A new outfit will probably be wanted.

Pensacola—Timber Land.—Long-Bell Lumber Co. of Kansas City, Mo., it is reported, has purchased 300,000 acres of timber land near Pensacola, which will probably be developed.

Pensacola—Sewerage System.—Board of Bond Trustees will receive bids until April 15 for the construction of sewerage system for which a bond issue was previously reported voted. T. Chalkley Hatton, 608 Market street, Wilmington, Del., is engineer in charge.*

Punta Gorda—Sand-lime-brick and Cement-block Factory.—C. F. Brown, C. M. Denham and Clayton Porter have formed a company to manufacture sand-lime brick and cement blocks. Machinery has been purchased.

St. Augustine—Steel Bridge.—St. Johns Light & Power Co. will build a steel bridge across the St. Johns river, to be three-quarters of a mile long and have a swinging span or drawbridge in center; bridge to be constructed to accommodate pedestrians, vehicles and electric cars. Plans have not as yet been decided on.*

Tampa—Naval Stores.—Timmons-Blount Company has amended charter changing name to the Peninsular Naval Stores Co. and increasing capital stock from \$250,000 to \$500,000. B. W. Blount is president; G. A. Pettaway, vice-president, and A. C. Bacon, secretary-treasurer.

GEORGIA.

Atlanta—Agricultural Implements.—James S. Lester, W. W. Draper, Daniel Pappa of Atlanta, Mrs. Fay Merchant of Birmingham, Ala., and Mrs. Mattie Gregory of Louisville, Ky., have applied for a charter for the Union

Hoe Co., with \$50,000 capital stock and privilege of increasing to \$100,000.

Atlanta—Publishing.—E. C. Walden, W. H. Crogman and J. W. E. Bowen have applied for a charter for the Press Publishing Co., with \$25,000 capital stock.

Atlanta—Bottling Works.—Chartered: Dope Bottling Co., with \$5000 capital stock and privilege of increasing to \$50,000, by Gordon Woodruff, C. G. Childs and William McClellan.

Atlanta—Furniture Factory.—Abbott Furniture Co. has been incorporated with \$12,000 capital stock and privilege of increasing to \$50,000 by M. H. Abbott and E. Felbelman.

Brunswick—Training Wall.—Roderick G. Ross, Jacksonville, Fla., is lowest bidder at \$8000 for repairing and raising the training wall in Brunswick inner harbor and raising a jetty at the mouth of Jekyll creek.

Brunswick—Steamship Company and Terminals.—The piers, wharves, warehouses, etc., reported last week as to be built by the Fore River Shipbuilding Co. of Quincy, Mass., are to be owned by the Brunswick Steamship Co., previously organized with H. M. Atkinson of Atlanta as president. This company has a capital stock of \$1,500,000, and will operate between Brunswick and New York and Boston, and in conjunction with the Atlanta, Birmingham & Atlantic Railroad (to be completed in 1907) will provide Georgia a new outlet and inlet for freight, and later on for passengers. Four steamships, tonnage 5000 each, have been ordered from the Fore River Shipbuilding Co., to be completed by December 1.

Cartersville—Electric-light Plant.—City contemplates constructing electric-light plant, and wants to correspond with parties to plan and estimate the cost of same. Address George S. Cobb, chairman electric-light committee.*

Gainesville—Concrete-block Factory.—A. D. Langford will establish plant for the manufacture of concrete blocks, and will operate at the Gainesville Concrete Stone Co.

Georgia—Fuller's-earth Mines.—R. H. Walker, Rooms 3-7 Farmer-Porter Building, Dothan, Ala., contemplates organizing company for the development of a large deposit of fuller's earth recently discovered in Southern Georgia.

Marietta—Telephone System.—Reports state that the Marietta Telephone Co. will expend \$50,000 in improvements to plant, installing about 3000 phones. O. L. Gracey is president.

Pelham—Cotton Mill.—Pelham Manufacturing Co. is reported as to double its plant; present equipment 564 spindles and 150 looms.

Rome—Plaster Factory.—George C. Wyatt will organize company and establish plant in East Rome for the manufacture of plaster on which he recently received a patent.

Savannah—Dredging, etc.—P. Sanford Ross, Jersey City, N. J., is lowest bidder at \$26,144 and will probably receive contract for dredging the waterway between Savannah and Fernandina, Fla.

Toccoa—Water-works.—City has purchased 500 acres of land as location for water-works previously reported to be constructed. Address The Mayor.

Valdosta—Chair Factory.—John R. Dorch, C. R. Ashby and others will organize company for the establishment of plant to manufacture chairs having a capacity of between 5000 and 6000 chairs a month.

Villa Rica—Ice Plant and Bottling Works.—It is reported that an ice plant and bottling works will be erected and operated in connection with electric-light plant, of which W. H. Malone is president.

Waycross—Gas Plant.—J. E. Dempsey is organizing company with \$100,000 capital stock for the establishment of a gas plant. Mr. Dempsey can be addressed care of the Jefferson Hotel.

KENTUCKY.

Arlington—Flour Mill and Grain Elevator. Arlington Roller Mills, Flegle Bros., proprietors, will rebuild plant reported burned last week. A mill building 30x40 feet with equipment for a daily capacity of 100 barrels and 40,000 capacity elevator will be erected. Charles Patrick is engineer in charge and Wm. Ebert is architect. About \$20,000 will be expended.*

Beattyville—Coal Mines.—Henry M. Payne, 10 White Building, Williamson, W. Va., is engineer in charge of the construction of plant for the McGuire Coal Co. at the mouth of Upper Stufflebean creek. This is the second plant to be installed by the company.

Corbin—Water-power-Electrical Plant.—W. G. Schamberger, manager Southern Real Estate & Development Agency, Gallatin, Tenn., and associates have secured control of Cumberland falls on the Cumberland river near Corbin, and will arrange for the development of the water-power. It is proposed to build a dam above the falls, which together will give about 180 feet fall and develop about 50,000 horse-power.

Georgetown—Sewerage System.—City has completed arrangements for the construction of sewerage system previously reported, and bids will be received until April 11; R. H. Anderson, mayor.*

Harlan—Coal and Timber Land, Coke Ovens, etc.—Dispatches state that Charles Page Perrin of New York, N. Y., has purchased from the Interstate Investment Co. of Louisville, Ky., a tract of coal and timber land in Harlan county, Kentucky, and Lee county, Virginia, and will build coke ovens and develop the timber. It is stated that J. A. L. Minor of Big Stone Gap, Va., has contract to build the coke ovens.

Lexington—Ice and Cold-storage Plant.—Lexington Ice & Cold Storage Co. has been organized with M. B. Corse, president, and E. L. Graham, vice-president.

Louisville—Sewerage System.—Peter Lee Atherton, Oscar Fenley, W. C. Nones and Theodore Ahrens have been appointed as members of the sewerage commission to have charge of the construction of sewerage system previously mentioned; cost \$4,000,000.

Louisville—Machine Works.—Atlas Machine Co. has been incorporated with \$25,000 capital stock to make elevators of all kinds and machinery. W. Daenle is president; office, 725-729 East Main street.

Louisville—Automobile Repair Shop, Garage, etc.—Kirchdorfer Automobile Co. has been incorporated with \$20,000 capital stock to repair automobiles, manufacture parts and conduct garage. A brick and frame store building 35x36 feet and a two-story garage 32x36 feet will be erected; about \$10,000 will be invested. J. C. Kirchdorfer is president; F. S. Clark, vice-president; Edw. Kimmel, secretary-treasurer. H. T. Gratz, 1700 Baxter avenue, is engineer in charge, and J. J. Gaffney, 5th and Jefferson streets, is architect; office, 1700 Baxter avenue.*

Louisville—Concrete-block Factory, etc.—Central Concrete Construction Co. has been incorporated with \$25,000 capital stock to manufacture concrete blocks, etc.; daily capacity 1000 blocks. Robert C. Morris is president; Taylor Brown, vice-president; C. J. Meddis, secretary, and Arthur Kaye, treasurer; office, 81 Todd Building.*

Louisville—Hat Factory.—Reports state that the Swann-Abram Hat Co. will establish plant for the manufacture of men's felt hats.

Paducah—Railroad Repair Shops.—It is reported that the Illinois Central Railroad will make improvements to shops. W. J. Harahan is fourth vice-president, Chicago, Ill.

LOUISIANA.

Alexandria—Lumber Company.—Iatt Lumber Co. has been incorporated with \$100,000 capital stock. Charles W. Lacroix is president and general manager; H. E. Hardtner, vice-president, and Ernest Jones, secretary.

Alexandria—Street-paving.—City has completed arrangements for paving sidewalks, and bids will be received until March 20; E. F. Hunter, city clerk.*

Lake Charles—Printing Plant.—Press Company, Ltd., has increased capital stock from \$15,000 to \$30,000.

Lecompte—Cottonseed-oil Mill.—Lecompte Cotton Oil Co., Ltd., reported incorporated last week, is an established company, the plant having been in operation three years. Robert H. Jackson is president; F. G. Drouet, vice-president; P. H. Hammond, secretary-treasurer and general manager.

Lees Creek—Saw-mills, Cottonseed-oil Mill, etc.—Chartered: Williams Brothers, Ltd., with \$10,000 capital stock, to operate saw-mill, lumber mill and cottonseed-oil mill. A. C. Williams is president; E. M. Williams, vice-president, and R. L. Williams, secretary-treasurer.

Loring—Saw-mill.—Bowman-Hicks Lumber Co. has begun rebuilding saw-mill recently reported burned at a loss of \$100,000. A building 50x206 feet will be erected and equipped for a daily capacity of 150,000 feet. Contracts have all been awarded. J. T. Burlingame is superintendent.

New Orleans—Shirt Factory, etc.—Chas. E. Claude Company, Ltd., has incorporated with \$100,000 capital stock to manufacture shirts, drawers, knee trousers, boys' waists and overalls. Chas. E. Claude is president; Fred C. Weber, vice-president, and John A. Mayle, secretary-treasurer.

New Orleans—Dry-dock.—It is reported that Moses Schwartz, together with local, Boston

(Mass.) and Philadelphia (Pa.) capitalists, will replace the McClellanville dry-docks in Algiers, build machine shops for doing all kinds of marine repair work, construct modern wharves, etc. Electricity will be used as motive power. It is stated that these parties now own about 5000 feet of river front and are making an effort to acquire additional frontage.

Natalbany—Timber Development.—It is reported that the Natalbany Lumber Co. of Natalbany and Rock Island, Ill., has purchased 30,000 acres of pine-timber land in Tangipahoa and St. Helena parishes for development purposes. It is stated that a double band saw mill with a daily capacity of 150,000 feet will be erected at Natalbany, large mills established in St. Helena parish and towns built along the route of the proposed new road connecting Greensburg, La., with the Illinois Central Railroad.

Shreveport—Saw-mill.—Bankers' Lumber & Timber Co., reported incorporated last week, will operate saw-mill with a daily capacity of 20,000 feet of yellow pine and cypress; office, 423 First National Bank Building.

MARYLAND.

Baltimore—Cross-tie Plant.—The Baltimore Cross-tie Co. has been incorporated with an authorized capital stock of \$10,000 to deal in timber lands and manufacture cross-ties by Bartlett F. Johnston, 407 Vickers Building, 225 East German street; Thomas D. Chalbourne, 407 Vickers Building; Stuart S. Janney, Calvert Building, Fayette and St. Paul streets; John F. Bull and Henry P. Bridges.

Baltimore—Timber Development.—The Southern Lumber Corporation has been incorporated with an authorized capital stock of \$50,000 to purchase and open timber lands and manufacture all kinds of timber by Frank S. Fenhamen and J. D. Virdin, both of the Canton Lumber Co., Boston and Chesapeake streets; John H. Berryman, James R. Clarke and H. C. McClosker.

Baltimore—Clothing Factory.—Preiss Bros., manufacturers of raincoats, New York, have awarded contract to Joseph Schamberger, builder, 2122 East Baltimore street, for the construction of factory building on Madeira street; two stories, 22x70 feet; brick with stone trimmings; steel beams; slate roof; Louis Levi, architect, American Building, Baltimore and South streets.

Baltimore—Dredging.—The Municipal Board of Awards, City Hall, has awarded contract to Maryland Dredging & Contracting Co., 903 Fidelity Building, Charles and Lexington streets, for the annual dredging work in the harbor of Baltimore. Major N. H. Hutton, harbor engineer, City Hall, will have charge of the work.

Baltimore—Stove Foundry.—S. B. Sexton Stove & Manufacturing Co., manufacturers of stoves, Sexton Building, 7-9 South Gay street, has commissioned Motte & White, architects, 328 North Charles street, to prepare plans and specifications for addition to its foundry and plant on West Conway street; three stories, 150x150 feet.

Baltimore—Vinegar Factory.—Fleischmann & Co. (Baltimore Manufacturing Co.), Paul Fleischmann, manager, Monument and Buren streets, has awarded contract to E. D. Springer, 424 South Charles street, for the construction of an addition to its factory; three stories, 38.3x42.7 feet; brick with granite trimmings; slate roof; cost about \$8000; J. E. Laferty, architect, 11 East Pleasant street.

Baltimore—Cigar Factory.—The Shield Cigar Co. has been incorporated with an authorized capital stock of \$2000 to manufacture cigars by Louis Kahn, 911 West North Avenue; Louis Sachs, 911 West North Avenue; Israel Merwitz, Benjamin Engel and Milton Dashell, 824 North Eutaw street.

Baltimore—Suburban Development.—The Bancroft Park Co. has been organized to develop 19 acres of land on Park Heights avenue for residential purposes. The officers of the company are: President, Wm. H. Mattha, 1403 Eutaw Place; vice-president, Herman H. Duker, Canton Avenue and Albemarle street; secretary, William G. Baker, Park Heights Avenue; treasurer, Ernest B. Jones, 7 East Lombard street.

Baltimore—Gas Plant.—The Maryland Gas, Light, Heat & Power Co. has applied to the State legislature for incorporation to manufacture gas for light, heat and power purposes. The incorporators are Wm. C. Kirby, 538 East Monument street; J. George Gehring, 420 North Gay street; Thomas C. Eley, James Glenn and Nathaniel T. Meginniss, 213 Courtland street; Thomas Ireland Elliott, Maryland Life Building, 8-10 South street, is counsel for the company.

Baltimore—Industrial Exposition.—The Greater Baltimore Jubilee & Exposition Co. has been incorporated with an authorized capital stock of \$250,000 for the purpose of

holding an exposition to present the development of the industries of the city; president, Frank N. Hoens; vice-president, E. Clay Timanus; treasurer, Bernard N. Baker; secretary, Samuel K. Dennis; executive committee, Wm. A. Boykin, John R. Bland, Frederick H. Gottlieb, Bernard N. Baker and Jerome H. Joyce. Offices of the association will be at the present be in the mayor's office, City Hall.

Baltimore—Food Products.—The Boone-Keagle Company has been incorporated with an authorized capital stock of \$5000 to deal in fish, oysters, game, etc., by Wm. A. Keagle, Jr., 1206 North Eden street; Charles W. Boone, 1010 McCulloch street; Robert C. Benson, Frank H. Haines and Frank F. Luthardt, 725 North Carey street.

Baltimore—Patented Novelty.—The Haines Automatic Machine Co. has been incorporated with an authorized capital stock of \$1500 to manufacture and operate patented novelties by George T. Haines and Alan Garwood, both of Philadelphia, Pa.; W. T. Milton Lucy, 524 North Mount street; John J. Bartholomew, 304 West Madison street, and Frank H. Bartholomew, 1435 Pennsylvania Avenue, all of Baltimore, Md.

Baltimore—Screen Factory.—M. Solimson, manufacturer of wire screens, Bayard and Nanticoke streets, will erect one-story brick addition 16x58 to his factory; Henry J. Tinley, architect, Hoffman Building, 11 East Lexington street.

Baltimore—Shipbuilding.—The Soho Iron Works has been incorporated with an authorized capital stock of \$1000 to conduct a shipbuilding business by Edward Gordon, Joseph G. Flick, 18 North Montford Avenue; S. Gordon Hopkins, Arlington, Md.; J. Louis Thompson, 1406 East Fayette street, and Samuel I. Williams.

Baltimore—Factory Building.—Charles Hoffberger, 1103 Low street, bns. commissioned J. C. Speden, 509 South Paca street, to prepare plans and specifications for factory building to be erected at 1115, 1117 and 1119 Low street; three stories, 41.6x67 feet; cost about \$6000.

Baltimore—Overall Factory.—Erlanger Bros., overall manufacturers, 519 West Pratt street, have purchased lot adjoining present factory and will erect an addition on the site, which is 25x150 feet.

Baltimore—Woodworking Plant.—Model Baby Walker Co. has been incorporated with capital stock of \$5000 to manufacture baby walkers by Wm. H. Neumeyer, 220 North Holliday street; Robert M. Hook, 1200 Madison Avenue, Karl A. M. Scholtz and Wallace McWilliams.

Barnesville—Canning Factory.—Barneaville Canning & Farmers' Supply Co. has been organized with \$18,500 capital stock to establish canning factory. James E. Williams of Boyd's, Md., is president, and Benjamin C. Gott of Sellman, Md., secretary.

Cumberland—Cement-block Factory.—A. A. Roeder and M. Sell, it is reported, will establish plant for the manufacture of cement blocks. It is proposed to organize company with \$5000 capital stock.

Frederick—Brick Works.—Incorporated: Maryland Brick & Supply Co., with \$50,000 capital stock, by George William Smith, D. Edward Kefauver, Harmon L. Gaver, Grayson H. Staley and C. E. Schildknecht, to manufacture brick.

Havre de Grace—Electric-light plant Improvements.—Havre de Grace Electric Co. has let contract for the installation of a 225-horse-power engine, 150-kilowatt generator, direct-connected two-phase alternating current.

Washington County—Copper Mines.—South Mountain Mining Co. has been chartered with \$1,000,000 capital stock by E. R. Cochran, Jr., of Wilmington, Del.; Dr. A. Fahrig, Charles W. Daley, Theodore Barrett, all of Philadelphia, Pa., for the development of 27 acres of land in Washington county containing copper.

Westminster—Publishing.—William H. Vandendorf, Dr. J. Howell Billingslea, Thomas Heribert Shriver, J. E. Beasman, George W. Albaugh, B. F. Crouse and associates have organized a company with \$24,000 capital stock to continue the publication of the Democratic Advocate.

MISSISSIPPI.

Como (P. O. Como Depot)—Cotton Compress.—John H. Taylor of Corinth, Miss., and associates have organized company with \$5,000 capital stock for the establishment of cotton compress.

Corinth—Electric-light Plant.—A company has been organized with \$250,000 capital stock to erect electric-light plant. Abe Rubel is president; M. J. Lamb, vice-president and manager, and Mark T. Bynum, secretary. Messrs. Rubel, Lamb and associates were re-

cently reported as having received franchise to operate electric-light plant.

Crystal Springs—Brick Works.—Chartered: Taylor-Thomas Brick Co., by W. B. Taylor, J. J. Thomas and associates.

Greenwood—Ice-cream Factory.—It is reported that Scales Bros. will establish ice-cream factory, a gasoline engine to be used for power.

Gulfport—Brick Works.—It is reported that Lorenzo Davis of Montgomery, Ala., is investigating with a view to establishing brick works.

Gulfport—Cigar Factory.—A. M. Leslie of Monroeville, Ala., it is reported, will establish cigar factory.

Jackson—Lumber Company.—O. E. Matthews, W. M. Matthews and others have incorporated the Matthews Lumber Co. with \$20,000 capital stock.

Moss Point—Canning and Syrup Factory.—Nutbank Pecan Co., reported incorporated recently with \$75,000 capital stock, will operate canning and syrup factory. About \$25,000 will be expended in building and equipment. Leroy Perkins is president; H. D. Booge, vice-president; W. C. Buehl, secretary, and Arthur Ledher, treasurer. The company will not be ready for equipment until 1907.

Port Gibson—Drug Company.—L. H. Wilkinson, J. M. Taylor and others have incorporated the Pope Drug Co. with \$15,000 capital stock.

Raymond—Cotton Gin, etc.—Raymond Ginning & Manufacturing Co. has been incorporated with \$10,000 capital stock by R. D. Peete and others.

Yazoo City—Cement-block Factory.—It is reported that K. C. Thompson & Co. of Greenville, Miss., will establish plant for the manufacture of cement blocks having a daily capacity of 400 cubic feet of block, equal to about 5000 brick. It is also stated that stone posts, cemetery copings, cement sidewalks, etc., will be manufactured.

MISSOURI.

Clayton—Construction Company.—Incorporated: Lamb Construction Co., with \$5000 capital stock, by Nicholas Lamb, Sr., Luke Lamb and Nicholas Lamb, Jr.

Joplin—Mining and Milling.—Long Mining & Milling Co. has been incorporated with \$64,000 capital stock by J. M. Vansky, R. K. Long and W. H. Brown.

Kansas City—Lighting Plant.—Samson Light Co. has been incorporated with \$10,000 capital stock by M. S. Samson, C. C. Haslett, W. F. Wyman and others.

St. Joseph—Street paving and Sewerage System.—Board of Public Works has ordered prepared ordinance, plans, estimates and specifications for paving seven miles of street with vitrified paving brick, reconstructing two miles of macadam streets and constructing two miles of district sewers. In addition there will also be 10 or 15 miles of street paving and 20 miles of district sewer construction ordered during the coming season. W. H. Floyd, Jr., is city engineer.

St. Louis—Bookbindery.—Chartered: St. Louis Bindery Co., with \$5000 capital stock, by W. G. Kraft, A. C. J. Otto and Frank Templin.

St. Louis—Construction Company.—Nicholas Lamp, Luke Lamp and Nicholas Lamp, Jr., have incorporated the Lamp Construction Co. with \$5000 capital stock.

St. Louis—Air Brakes.—Frederick Kallsch, William P. Cushman, James Hardie, all of St. Louis, and Robert Glendinning of Chicago, Ill., have incorporated the Kallsch Air Brake Co. with \$25,000 capital stock.

St. Louis—Fiberware.—Seamless Fiberware Co. has been incorporated with \$30,000 capital stock by L. B. Towner, E. H. Michel, J. B. Hicks, J. H. Cranville and associates.

St. Louis—Dairy Machinery.—Sanitary Milking Machine Co. of America has been incorporated with \$200,000 capital stock by Gustave H. Schupman, Harry J. Grafman and F. C. Husemeyer to operate and sell all kinds of dairy machinery and apparatus.

St. Louis—Land and Lumber Company.—Dunklin County Land & Lumber Co. has been incorporated with \$30,000 capital stock by John Gaffney, Hans Wachsmuth and others.

St. Louis—Trunk Factory.—Charles Krass, Ernest W. Loeweke, Timothy McCarthy, Herman A. Kolb and associates have incorporated the Krass-McCarthy Trunk Co. with \$5000 capital stock.

Trenton—Water-works.—City has voted affirmatively the proposed \$80,000 bond issue for the construction of water-works or the purchase of local plant. Address The Mayor.

Webb City—Concentrating Plant.—Underwriters' Land Co., W. R. Caulkins, manager, will erect a concentrating plant with a capacity of 1000 tons daily.

NORTH CAROLINA.

Biltmore—Veneering Factory.—It is reported that W. H. Wilcox of Waterbury, Conn., and H. T. Harriman of Boston, Mass., will organize company for the establishment of \$30,000 veneering plant.

Biscoe—Cotton Mill.—H. A. Page and others have incorporated the Francis Cotton Mills with a capital stock of \$200,000.

Chadbourn—Lumber Company.—Chartered: Brown Lumber Co., with \$25,000 capital stock, by J. A. Brown, C. C. Pridgen and others.

Concord—Braiding Mill.—John A. Barnhardt and Chas. E. Barnhardt will establish a mill for manufacturing all kinds of braids. They have leased building and site, and will soon install the machinery required.

Gastonie—Saw-mill.—It is reported that W. T. Rankin, J. L. Robinson and P. R. Hoffstetter will erect saw-mill.

Greensboro—Iron and Woodworking Plant. Wyoming Company has increased capital stock to \$250,000.

Graham—Cotton Mill.—Sidney Cotton Mills has let contract for erection of addition two stories high, 50x130 feet, and will install 3136 spindles; present equipment, 150 looms.

Lumberton—Lumber Company.—Carolina Lumber Co. has been incorporated with \$50,000 capital stock by G. B. McLeod, H. M. McAllister, W. H. Bryant and others.

Polloksville—Lumber Company.—E. L. Haughton and associates have incorporated the Polloksville Lumber Co. with \$5000 capital stock.

Raleigh—Land Improvement.—Park Avenue Land Co. has been incorporated with an authorized capital stock of \$25,000 for the development of 10 acres of land in West Raleigh as suburban site. B. S. Jerman is president, and H. W. Jackson, secretary-treasurer.

Raleigh—Land Improvement.—Zebulon Company, recently chartered to develop a tract of land adjacent to Raleigh as town-site to be known as "Zebulon," has completed organization with E. B. Barbee, president, and F. B. Arendell, secretary. John W. Hayes of Petersburg, Va., civil engineer, has been engaged to make surveys and plot the town.

Randleman—Electric-power Plant.—Reports state that Johnson Bros. are investigating the water-power of the Deep river, two miles distant, with a view to developing same and building electric plant for transmitting by electricity to Randleman, furnishing light.

Sanford—Beverage Factory.—Golden Rod Bottling Co. has incorporated, with an authorized capital stock of \$10,000, to manufacture "Golden Rod" ginger ale and other non-alcoholic drinks: incorporators, W. H. Harrington, W. H. Pace, D. R. Wright, W. C. Douglas and associates.

Southport—Saw-mill.—A. J. Bobbins, reported last week as to establish saw-mill, will erect a one-story building, 40x80 feet, to be equipped for a daily capacity of 10,000 feet of long and short leaf pine and poplar. About \$4000 will be invested.

Statesville—Telephone System.—It is reported that the Southern Bell Telephone & Telegraph Co. (main office, Atlanta, Ga.) has purchased the Statesville Telephone Exchange. It is stated that the entire exchange will be remodeled, new lines run and new circuits put in. It is also stated that the company contemplates constructing an exchange at Cleveland, 14 miles from Statesville.

Warrenton—Ice Plant.—John K. Myers and associates contemplate establishing ice plant.

Washington—Starch Factory.—B. L. Susman and associates contemplate the erection of a starch factory.*

Wilmington—Lumber Company.—Hammer Lumber Co. has been incorporated with \$10,000 capital stock by T. P. Hammer, F. L. Hammer and others.

SOUTH CAROLINA.

Bamberg—Electric-light Plant.—The date for opening bids for the construction of electric-light plant, mentioned last week, has been postponed from the 15th to the 22d; A. W. Knight, secretary board of public works.*

Beaufort—Telegraph and Telephone System.—People's Telegraph & Telephone Co. has been incorporated with \$15,000 capital stock. R. A. Long is president, secretary and treasurer, and George Holmes, vice-president.

Charleston—Toll Bridge.—Chartered: Klaren Brldge Co., with \$1000 capital stock, to construct a toll bridge across Wappo Cut. Otto F. Klaren is president, and George H. Klaren, secretary.

Charleston—Fluorspar and Fuller's-earth Mines.—Edwin H. Schirmer, 10 Green street, contemplates organizing company for the development of fluorspar and fuller's-earth deposits.

Charleston—Sewerage System.—J. H. Dingle, city engineer, has recommended a revision of the plans of the late Frank Hartford of Atlanta, Ga., for sewerage of the city by the Shone system (one-tenth of the city having already been seweraged under these plans), and has been authorized to engage J. L. Ludlow, Winston, N. C., as consulting engineer.

Chester—Cotton Mill.—Wylie Mills will increase capital stock from \$100,000 to \$150,000; present equipment, 20,160 spindles.

Cowpens—Cotton Mill.—Cowpens Manufacturing Co. has awarded contract for additional machinery, 5000 spindles and 150 looms. This equipment will be installed in the original building; present equipment, 10,000 spindles and 264 looms.

Greenville—Publishing.—Greenville News Co., reported last week as to make improvements to plant, will expend \$20,000 in new equipment, to include a new perfecting press and additional linotype machine, job-work press, type and other supplies. The capacity of plant has been increased.

Greer—Concrete-block Factory.—It is reported that J. F. Hicks of Greenville, S. C., contemplates establishing plant to manufacture concrete blocks.

Jonesville—Cotton Mill.—Jonesville Manufacturing Co. proposes increasing capital stock from \$175,000 to \$350,000 for the purpose of adding spindles and looms—probably 10,000 spindles and 300 looms; present equipment is for spinning yarns and knitting hosiery.

Kingsree—Supply Company.—Farmers' Supply Co. has been incorporated with \$10,000 capital stock. W. C. Nesson is president, and H. E. Montgomery, secretary-treasurer.

Liberty—Cottonseed-oil Mill.—Chartered: Bolen Oil Mills, with \$10,000 capital stock. F. A. Adden is president and treasurer, and G. E. Bolen, secretary.

Orangeburg—Bottling Works.—Orangeburg Coca-Cola Bottling Works has been incorporated with \$6000 capital stock by W. F. Fairley, J. X. Weeks, G. D. Jennings and associates.

Orangeburg—Telephone System.—Chartered: Orangeburg & St. Matthews Telephone Co., with W. Hampton Dukes, president and manager. Equipment has been purchased.

Scotia—Lumber Company.—Scotia Lumber Co. has been incorporated with \$6000 capital stock. M. L. Peebles is president, and M. A. Mason, secretary-treasurer.

TENNESSEE.

Athens—Road Improvements.—McMinn county is reported as to vote March 10 on the issuance of \$200,000 of bonds for road improvements. Address County Clerk.

Bristol—Saw and Planing Mill.—It is reported that the Bristol Door & Lumber Co. will make improvements to plant, installing additional machinery in saw and planing mills, increasing the output. W. O. Came is president.

Camden—Canning Factory.—Camden Canning Co. has been incorporated with \$10,000 capital stock by T. J. Lowry, L. A. Wyatt, J. J. Cole, A. S. Justice and others.

Chattanooga—Drug Factory.—Chartered: Fritts & Wiehl Company, with an authorized capital stock of \$100,000, by B. F. Fritts, K. F. Wiehl, F. F. Granger and associates.

Chattanooga—Boiler Factory.—It is reported that Alfred Hill, Drausin Wulsin, Frank O. Suire, Clarence Pumphrey and Phillip Hinkle, all of Cincinnati, Ohio, have purchased a large interest in the Casey-Hedges Company, manufacturers of steam boilers, engines, steam pipes, plumbers' supplies, etc., and will incorporate with \$300,000 capital stock to continue operating the plant.

Chattanooga—Mining.—Emma Mining Co. has been incorporated with \$50,000 capital stock by R. H. Williams, George D. Lancaster, C. W. Robinson, Battle McLester and Percy H. Wilson to mine coal, copper, lead, zinc, mica, etc.

Clarksville—Bottling Works.—P. M. Estes, C. A. Folk, J. M. Dykes and others have incorporated the Coca-Cola Bottling Works with \$5000 capital stock.

Crossville—Coal and Timber Development. Tennessee Coke & Coal Co. is being organized with \$2,500,000 capital stock for the development of 16,000 acres of coal and timber land near Crossville. It is estimated that about 2000 tons of coal will be mined daily. Herman M. Sternbergh of Reading, Pa., will be vice-president; Webster Blocker, second vice-president; Lucius P. Wilson, general manager; Newton H. Emmons, secretary, and Robert Bruce Clark, treasurer, all of New York, N. Y. The Southern Contracting & Development Co. Webster Blocker, president, 41 Wall street, New York, N. Y., was mentioned last week as having purchased 16,000 acres of

coal and timber land in Cumberland county and to form another company. Mills with a daily capacity of 50,000 feet for cutting the timber on the tract, also for manufacturing chair stock, staves, spokes and handles, will be erected. About \$500,000 will be invested in mining and milling machinery.

Grundy County—Coal Mines, Coke Ovens, etc.—Mark Packard, Mutual Life Building, Buffalo, N. Y.; James A. Henchey, Samuel B. Smith, W. H. Pryor and Bruce Forshee (addresses not given) have applied for a charter for the Cumberland Corporation, with \$500,000 capital stock, to operate coal mines and coking plants on the Cumberland plateau in Grundy county.

Jackson—Engine and Boiler Works.—Southern Engine and Boiler Works has increased capital stock from \$200,000 to \$300,000.

Knoxville—Lumber Company.—Chartered: Hardwood Lumber Co., with \$15,000 capital stock, by Jesse L. Rogers, W. C. Parkley, H. E. Fugate and others.

Knoxville—Zinc Mines.—Emma Zinc Co. is being organized with \$50,000 capital stock for the development of zinc lands. It has purchased 60 acres containing zinc deposits five miles from Knoxville, and has an option on 400 acres additional. August Signalgo, formerly of Attalla, Ala., will be president, and W. D. Ham of St. Louis, Mo., will be manager.

Lenoir City—Car Works.—Lenoir City Car Works, it is reported, will increase capital stock from \$200,000 to \$350,000, enlarge plant and double the present capacity of 10 coal cars daily.

Memphis—Sand Conveyor and Sand Bins.—Selby-Breck Construction Co. has about completed the construction of sand conveyor for the Memphis Sand & Gravel Co. at the juncture of the Mississippi river and Nonconnah creek, near Memphis. Plant will cost \$60,000, have a capacity for three loading tracks, supplied with power by two engines of 100 and 150 horse-power, the bucket for weighing the sand to weigh eight tons and have a capacity of 5400 cubic feet and carry 300 cubic feet of sand per minute. The movable crossbeam, in which runs the trolley for the bucket, is 150 feet long and projects 45 feet over the river. The conveyor is 118 feet high and contains 110 tons of steel. The Selby-Breck Construction Co. is also building another sand bin for the company to have a capacity of 50,000 cubic feet and cost \$15,000.

Memphis—Lumber Mill.—Darnell-Wilson Lumber Co. has been incorporated with \$50,000 capital stock by R. J. Darnell, A. M. Love, R. J. Wiggs, H. D. Elder and others. Plant will be established in North Memphis.

Memphis—Soap Factory.—Bellis Bros. & Pete Co., F. C. Bellis, superintendent, Louisville, Ky., will erect three-story factory building 70x167 feet at a cost of \$10,000, which will be equipped for a daily capacity of 300 to 500 boxes of soap; capital stock \$50,000. F. C. Bellis was previously reported as investigating for the establishment of plant, removing factory from Louisville, Ky., to Memphis.

Memphis—Candy Factory.—Holday Ice Cream Co. is arranging for the erection of proposed three-story addition to be equipped for the manufacture of candy.

Memphis—Box Factory.—Moore & McFerren will rebuild box factory reported burned last week at a loss of \$75,000.*

Model—Telephone System.—Incorporated: Model Telephone Co., with \$5000 capital stock. L. G. Acree is president; R. L. Blane, general treasurer.

Nashville—Industrial Development.—Southern States Development Co., recently incorporated with \$100,000 capital stock, has been reorganized as the Southern Development & Realty Co., for general development purposes, to finance industrial enterprises, etc. W. C. Collier is president; C. W. Weaver, vice-president, and G. H. Elling, general manager and secretary-treasurer; office, 1211-12 First National Bank Building.

Nashville—Mantel Factory.—Southern Lumber & Box Co. has amended charter changing name to the Southern Lumber & Manufacturing Co. and increasing capital stock from \$60,000 to \$100,000. This company was previously reported as to increase capital stock and establish plant for the manufacture of hardwood mantels to be operated in connection with box factory, band-saw mill and planing mill.

Nashville—Machine Works.—John Bouchard & Sons Company has begun the erection of proposed addition to plant, which will be equipped for doubling the present capacity.

Nashville—Street Improvements.—City will vote May 3 on the issuance of \$150,000 of bonds for extending Commerce street. Address Mayor Morris.

Townsend—Saw-mill.—Little River Lumber Co. will erect saw-mill with a daily capacity

of 100,000 feet of hardwoods, white pine and hemlock; building to be of frame construction 60x110 feet, with additions 28x30 feet and 32x49 feet. About \$60,000 will be invested. W. B. Townsend is general manager.

TEXAS.

Ballinger—Gas Plant.—C. A. Doose and associates, recently reported as having franchise for gas plant, will operate as the Ballinger Gas Co.; plant to have capacity of 24,000 cubic feet in 24 hours. About \$30,000 will be invested; size and character of building not determined.*

Ballinger—Water-works.—Arrangements have been completed for improvements to water-works, and bids will be received until March 16; J. W. Powell, mayor.*

Batson—Oil Wells.—Christian Oil Co. has been incorporated with \$50,000 capital stock by E. G. Christian of Batson, Hugh Hamilton and R. L. Autrey of Houston, Texas, and George W. Armstrong of Fort Worth, Texas.

Beaumont—Lumber and Wood Company.—C. A. Easley, W. C. Keith and W. P. Daniels have incorporated the Seaport Lumber & Wood Co. with \$10,000 capital stock.

Corsicana—Oil Wells.—Chartered: Powell Oil Co., with \$10,000 capital stock, by James Garrity, William Morgan, G. W. Morgan and associates.

Dallas—Incorporated: Southern Mills Co., with \$25,000 capital stock, by W. T. Graves of Dallas, J. B. Wilson of Sherman, Texas, and H. R. Eldridge of Houston, Texas.

Dallas—Automatic Switching Device.—Reports state that F. M. Dannelly will establish plant for the manufacture of an automatic railway switching device.

Dallas—Construction Company.—Chartered: Stevenson-Kenyon Construction Co., with \$15,000 capital stock, by Howard Kenyon, F. L. Stevenson and D. H. Morrow.

Dallas—Marble and Granite Works.—Hall & Abbot will erect marble and granite works.

Denison—Electric-power Plant.—Missouri, Kansas & Texas Railway will not build an electric-power plant, as recently reported, but is contemplating the enlargement of present plant. Plans have not as yet been prepared. S. B. Fisher, St. Louis, Mo., is chief engineer.

El Paso—Street-paving.—Arrangements are being completed and bids will be received until March 28 for paving streets in Improvement District No. 1; Charles Davis, mayor; George C. Wimberly, city engineer.*

Ferris—OH Wells.—Chartered: Ferris Oil Co., with \$10,000 capital stock, by T. J. Weatherford, W. E. Weatherford, A. E. Cox, C. E. Kooken and associates.

Fort Worth—Cigar Factory.—Lige Daniels, J. T. Pitman and others have incorporated the Fort Worth Cigar Co. with \$5000 capital stock.

Galveston—Terminals.—Galveston Terminal Railway Co., recently reported as having secured property for the construction of terminal system, has acquired 14 blocks of ground, which will be used for trackage, depots, etc., but it will be necessary to fill in the land purchased before construction work will begin. The terminals will be used by the various roads entering Galveston. E. R. Cheesborough is secretary-treasurer.

Greenville—Gas Plant.—J. B. Murphy, J. O. Hayter and Will N. Harrison have let contract for the construction of proposed gas plant; main building, two stories, of brick.

Houston—Transportation Company.—Houston Transportation Co. has been incorporated with \$10,000 capital stock by J. W. Matthews, John G. Tod of Houston and J. M. Matthews of Deepwater, Texas.

Humble—Oil Wells.—Mutual Share Oil Co. has been incorporated with \$10,000 capital stock by C. B. Burnett, W. F. Martin and others.

Jefferson—Creosoting Works.—It is proposed to establish creosoting works, and A. S. Case of Texarkana, Texas, can probably give information.

Nacogdoches—Drug Company.—Stone Fort Drug Co. has been incorporated with \$20,000 capital stock by R. T. Shindler, E. M. Weeks, F. L. Murphy and others.

Orange—Canal.—Adams Bayou Canal Co. has let contract to G. L. Faubion for extending Adams bayou canal one mile north.

Palestine—Gas Plant.—A. Voiney Foster is installing gas plant referred to last week. Federal Gas Co., Texarkana, Ark., has the contract for machinery and equipment necessary. J. H. Fitzgerald is engineer in charge.

Queen City—Drug Factory.—Hutchinson Medicine Co. of Queen City and Texarkana has been incorporated with \$20,000 capital stock by J. C. Hutchinson, Sr., J. N. White, J. C. Hutchinson, Jr., and others.

San Antonio—Gas and Electric-light Plant.—San Antonio Gas & Electric Co. has increased capital stock from \$200,000 to \$500,000.

Stephenville—Cotton Compress.—It is proposed to establish a cotton compress, and W. C. Cherry is promoting the enterprise.

Waxahachie—Nursery.—J. R. Mayhew, C. C. Mayhew and W. W. Robinson have incorporated the Waxahachie Nursery Co. with \$20,000 capital stock.

Wharton—Cottonseed-oil Mill.—People's Oil & Cotton Co. is making extensive improvements to plant, doubling the present capacity. About \$10,000 will be expended.

Yorktown—Electric-light and Ice Plant.—It is reported that Koenig & Son have let contract for proposed \$16,000 electric-light and ice plant.

VIRGINIA.

Chatham—Water-works Improvement.—Town will expend about \$10,000 in improvements to water-works, increasing the supply. C. N. Ambler, Salem, Va., will be engineer in charge.

East Stone Gap—Timber-land Development.—Tug River Lumber Co., B. B. Burns, vice-president, Bristol, Tenn., has purchased a tract of timber land in Wise county estimated to cut 20,000,000 feet of lumber. Arrangements will be made at once for the erection of mills. The most improved labor-saving devices will be installed, skids, log loaders, etc., and a logging railroad built.

Franklin—Water-works and Sewerage System.—Arrangements have been completed for the construction of water-works and sewerage system, previously reported, and bids for same will be received until March 27; Charles S. York, consulting engineer, 1526 East Biddle street, Baltimore, Md.*

Lee County—Coal Mines and Coke Ovens.—A company has been organized with \$50,000 capital stock and J. R. Sampson of Middleboro, Ky., president, for the development of 600 acres of coal land in Lee county which has been leased from the Black Mountain Coal Land Co. of Bristol, Tenn. Coke will also be manufactured.

Norfolk—Bottling Works.—Chartered: Pepsi-Cola Bottling Co., with C. R. Carver, president; E. S. Stubbs, vice-president, and Chas. Hoofnagle, secretary-treasurer; authorized capital stock \$10,000.

Norfolk—Knitting Mill.—Northside Knitting Co. will double its plant referred to last week. It has awarded contract for 13 machines, increasing full complement to 30 machines.

Norfolk—Water-works Improvement.—City has awarded contract to the Bell Engineering & Construction Co., 230 Broadway, New York, N. Y., and Norfolk, for constructing coagulating basin, previously mentioned; the work to begin on April 2 and be completed by July 28. It will comprise about 7250 cubic yards excavation, 2000 cubic yards puddled-clay dam, 8250 square yards concrete laid in floor of basin and slope of dam and basin, building two suction chambers and two sluiceways with four 36-inch diameter and two 60x16-inch rectangular sluicegates set therein, and laying 480 feet of 30-inch cast-iron water pipe, which has been contracted for. The contract price is \$23,680.

Norfolk—Railroad Repair Shops.—Norfolk & Western Railway, it is reported, is completing arrangements for making improvements to shops, building an extension to boiler shop, enlarging paint shop, erecting paint stockhouse and foundry building 140x740 feet. About \$365,000 will be expended. C. S. Churchill, Roanoke, Va., is chief engineer.

Petersburg—Street-paving.—City has awarded contract to the Southern Construction Co., Norfolk, Va., at \$1.04 per cubic yard for paving the sidewalks of a number of streets with granolithic.

Richlands—Brick Works.—Richlands Brick Co., D. G. Robinson, president, has increased capital stock to \$50,000. It is proposed to expand \$10,000 in betterments and improvements.

Richlands—Coal Mines.—Clinch River Coal Co. has been organized with \$10,000 capital stock to develop coal properties one mile from Richlands. W. B. Spratt is president; H. J. Burnett, vice-president; D. G. Robinson, secretary, and C. B. Orr, treasurer.

Richlands—Coal Mines.—Richland Coal Co. contemplates installing a fan for ventilating coal mines. Gasoline engine will be used for power. M. R. McCorkle is manager.

Richlands—Ice Plant.—Clinch Valley Ice Co. has been organized with \$8000 capital stock to build a 20-ton ice plant; Incorporators, Lake & Hankins. Contract for the erection of plant has been let to Spotts Bros., Tazewell, Va.

Rockingham—Stone Quarry.—Forest City Stone Co. has been incorporated with an authorized capital stock of \$300,000. W. L. Connell of Scranton, Pa., is president; W. C.

Moulton of Norwich, N. Y., secretary, and R. C. Brooks of Scranton, Pa., treasurer.

Roanoke—Power-plant Improvements.—Roanoke Railway & Electric Co., J. W. Hancock, general manager, reported last week as to expend \$150,000 in improvements, will improve power plant, increasing the capacity, purchase additional cars, extend lines and rebuild some of its tracks.

Virginia Beach—Sewerage System, Water-works, Electric-light Plant, etc.—Virginia Beach Development Co., A. R. Law, president, Philadelphia, Pa., is having plans prepared for improvements to cost about \$100,000, to include the construction of sewerage system, water-works and electric-light plant, and possibly a new flume connecting the lakes with the ocean.

Waverly—Woodworking Plant.—Gray-Lattimer Company has been incorporated to establish woodworking plant.

WEST VIRGINIA.

Charleston—Saw-mill.—West Virginia Timber Co. is arranging for the erection of proposed saw-mill on Glade creek to cost \$12,000 and have a daily capacity of 40,000 feet. This company recently purchased the Beury tract of 2400 acres, and has just closed a deal for 4000 acres adjoining.

Charleston—Coal and Iron Mines.—Olcott Coal & Iron Co. has been incorporated with \$500,000 capital stock by S. B. Avis, Ivory C. Jordan, Walter C. Hardy, F. K. Holmstead and T. Mairs.

Charleston—Electric-light Plant, Water-works, Gas Plant, etc.—Reports state that W. E. Chilton and associates have purchased the plant of the Kanawha Light & Water Co., which includes the Kanawha Gas Co. The Kanawha Light & Water Co. controls the traction company, the Kanawha Natural Gas Co., the artificial-gas company, the water-works and electric-light plant. It is stated that improvements will be made to the various plants.

Charleston—Steel Plant.—Baldwin Steel Co., with works at Cold Spring, N. Y., and offices at 107 John street, New York city, recently mentioned as contemplating the establishment of plant to manufacture high-grade crucible steel in the gas fields of West Virginia, has purchased 12 acres of land near Charleston on which to locate manufacturing plant, removing same from Cold Spring. The plant will consist of crucible furnaces, mills with a full complement of various sizes of steam hammers, besides necessary shears, cutting-off machines, planishers and other equipment for making different shapes of tool steel. It is also proposed to establish a new department for the manufacture of pick steel for mining machines; buildings to be of concrete or brick and steel construction. The company is a copartnership, consisting of Samuel W. Bowne, U. C. Brewer, C. F. Simmons and A. G. Lansing.

Clarksburg—Oil-storage Tanks.—South Penn Oil Co. has purchased site on which to erect storage tanks.

Huntington—Granite Quarry.—L. C. McColm Granite Co. has been incorporated with \$25,000 capital stock by F. C. McColm, J. D. McColm, Wylie Stableton, G. J. Nicholson and associates.

Kermitt—Coal-mining.—Warfield Coal Co., W. W. Cook, superintendent, is building new plant and will be ready to ship coal by May 1.

Lumberport—Coal Mines.—Lumberport Coal Co. has been incorporated with \$75,000 capital stock by Edward Pitcairn, William L. Clouse, Charles W. Brown, James E. Patton, Jr., all of Pittsburgh, Pa., and Jesse K. Johnston of Charleroi, Pa.

May—Lumber Mill and Timber Land.—It is reported that Neil & Gilfillian of Brooksville, Pa., have purchased the plant and timber land of the Hoover-Dimeling Lumber Co. It is stated that there is about 4000 acres of uncut timber on the property.

Moundsville—Coal Mines and Coke Ovens.—Liberty Coal & Coke Co. has incorporated with \$150,000 capital stock to mine coal and manufacture coke; Incorporators, J. D. Gardner, D. C. Cumpston, George E. Rice, C. E. Bower and associates.

Preston—Coal Mines.—Incorporated: Le-Roy Coal Mining Co., with C. V. LeRoy of Preston, president and general manager, and W. T. Cook of Dingess, W. Va., secretary, to mine coal. Henry M. Payne, 10 White Building, Williamson, W. Va., is engineer in charge.

St. Marys—Oil Company.—G. W. Miles, L. P. Walker of St. Marys, Frank Hicks of Sisterville, Jacob Snyder and Thomas Halpin of Wheeling, W. Va., have incorporated the Miles, Snyder & Hicks Oil Co. with \$25,000 capital stock.

Tunnelton—Coal Mines.—Chartered: Marshall Coal Co., with \$25,000 capital stock, by B. Dawson Coleman of Lebanon, Pa.; S.

Wesley Sears, Richard Churchill, William L. Kruter and J. Claude Bedford.

West Union—Oil Wells.—A. M. West, M. B. Summers, J. F. Trainer and others have incorporated the Wellsburg Oil Co. with \$24,000 capital stock.

Williamson—Coal-mining.—Goff Coal Co., W. T. Goff, general manager, will enlarge plant and install new tipple.

Williamson—Concrete-block Factory.—Ken Maynard and W. B. Ellsworth will establish plant for the manufacture of concrete blocks and operate as Ellsworth & Maynard.

Williamson—Concrete-block Factory.—R. L. Williamson and E. H. Lambert have organized as Lambert & Williamson for the manufacture of concrete blocks. Contracts have been secured for the erection of 16 residences. Mr. Williamson was previously mentioned as to establish concrete-block factory.

INDIAN TERRITORY.

Coalgate—Electric-light Plant.—It is reported that Frank V. Archer of Muskogee, I. T., has secured franchise to construct electric-light plant.

Madill—Water-works.—City will vote April 3 on the issuance of bonds for the construction of water-works, mentioned last week: John L. Carter, mayor.

Sapulpa—Sewerage System.—City has engaged D. B. Merry of Tulsa, I. T., to prepare plans and specifications for sewerage system. It is estimated that a partial system will cost \$21,000 and a complete system \$14,000.

OKLAHOMA TERRITORY.

Alva—Plaster Factory.—Oklahoma Plaster Co., recently reported incorporated with \$150,000 capital stock, will manufacture cement plaster, wall plaster, finishing plasters, dental and modeling plaster, plaster paris, land or fertilizing plasters. Main building will be 60x300 feet; daily capacity 250 tons. About \$100,000 will be expended in building and equipment. Contract for construction of plant will be let to J. B. Ehrenz & Sons Manufacturing Co. of Enterprise, Kan. C. M. Poorman is president; J. M. Bickel, vice-president; C. A. Poorman, secretary, and W. E. Poorman, treasurer.

Anadarko—Oil and Gas Wells.—Southwestern Oil & Gas Co. of Anadarko and St. Louis, Mo., has been incorporated with \$600,000 capital stock by D. G. Galloway, D. W. Gish and Dyke Ballinger.

Choctaw—Cotton Gin, Grist Mill and Cannery Factory.—John W. McCamy, Leo L. Beeman, J. B. Vaught, Samuel H. Walton and August Brumme have incorporated the Farmers' Co-operative Gin, Mill & Cannery Co. with \$50,000 capital stock.

Elk City (P. O. Busch)—Cottonseed-oil Mill.—Chartered: Elk City Cotton Oil Co. of Elk City and Oklahoma City, O. T., with \$100,000 capital stock, by F. E. Herring of Elk City, F. E. Anderson, W. L. Clayton, B. Clayton and W. A. Hanson.

Guthrie—Mining.—Sandholm Mining Co. of Guthrie and Des Moines, Iowa, has been incorporated with \$250,000 capital stock by G. V. Pattison of Guthrie, John A. Sandholm and S. D. Sandholm of Des Moines, Iowa.

Lawton—Natural-gas Mains.—Lawton Natural Gas Co. has been organized with R. A. Hubbard, president; E. E. Shipley, vice-president; C. W. Payne, secretary, and G. F. H. Barbeck, treasurer, to supply the city with natural gas.

Okeene—Plaster Factory.—H. E. Wilson, J. C. Fisher, F. S. Wyatt and E. L. Cressler have incorporated the Frisco Plaster & Manufacturing Co. with \$200,000 capital stock.

Oklahoma City—Cotton Gin.—Oklahoma Gin Co. has been incorporated with \$100,000 capital stock by F. E. Anderson, W. L. Clayton and W. A. Hanson.

Oklahoma City—Lead Mines.—Quapaw Lead Mining Co. of Oklahoma City, Quapaw, I. T., and Chicago, Ill., has been incorporated with \$100,000 capital stock by F. B. Wescott, Geo. W. Bowden of Oklahoma City, Arthur E. Lockman, G. P. Beardsley and E. D. Steen of Chicago, Ill.

Richmond—Telephone System.—Chartered: Farmers & Merchants' Mutual Telephone Co., with \$10,000 capital stock, by William Goodhue of Richmond, John W. White and U. R. Fox of Selling, O. T.

Sayre—Mill and Elevator.—Sayre Mill & Elevator Co. has increased capital stock from \$30,000 to \$50,000.

Shawnee—Voting Booths.—Australian Voting Booth Co. has been incorporated with \$10,000 capital stock by J. W. Robertson, H. Germer, E. C. Stanard, Sam Harris of Shawnee and W. W. Douglas of Crete, Neb., to establish plant for the manufacture of booths for holding elections in Oklahoma and adjoining States.

Siboney—Oil and Gas Wells.—Chartered: Siboney Oil & Gas Co., with \$500,000 capital stock, by G. D. Thompson, Robert Weaver, J. R. Faulkner, J. S. Massay, J. J. Mathis, C. W. Jones and K. C. Stinebaugh.

Snyder—Gas and Oil Wells.—J. S. Carmack, Otto J. Helwig, Andrew Haley, B. C. Burnette and P. E. Griffin have incorporated the Snyder Gas & Oil Co. with \$10,000 capital stock.

Thomas—Oil and Gas Wells.—Thomas Oil & Gas Co. has been organized with \$100,000 capital stock by Charles F. Shaw, J. S. Huston, W. L. McClung, E. S. Bronson, N. A. Nichols of Thomas, George H. Rice, Thomas H. W. Roh of Trenton, Mo., and associates.

Verden—Electric-light Plant.—Verden Electric Co. has been incorporated with \$10,000 capital stock by E. C. Englehart of Verden, Samuel Black of Lenl, O. T., and Roy Black of Minco, I. T.

Woodward—Water-works.—American Light & Power Co. has contract at \$47,640 for the construction of water-works, for which plans and specifications were previously reported as being prepared by the O'Neill Engineer Co., Dallas, Texas.

BURNED.

Childsco, Texas.—Quanah Gin & Feed Mill Co.'s cotton gin; loss \$5000.

Decatur, Ala.—Arotz Bros.' saw-mill; loss \$24,000.

DeQueen, Ark.—DeQueen Light, Ice & Cold Storage Co.'s plant; loss \$30,000.

Farmersville, Texas.—Carver Bros.' cotton gin; loss \$3000.

LaGrange, Texas.—LaGrange & Lockhart Compress Co.'s cotton compress; loss \$200,000.

Lexington, Ky.—Adams & Morford Building.

Longview, Texas.—A. G. Brown's dry-kiln; loss \$5000.

Malakoff, Texas.—Malakoff Press Brick Co.'s plant.

Meridian, Miss.—Damaged by tornado: Meridian Fertilizer Co.'s plant; Meridian Light & Railway Co., damage \$2000, mainly poles and wires; offices and freight warehouse of Queen & Crescent Route, Wm. Doyle, superintendent bridges and buildings, Somerset, Ky., loss \$5000; Gulf Compress Co.'s plant, loss \$5000; Meridian Cotton Mills, loss \$10,000.

Norwood, Mo.—Bell Bros.' flour mill.

Oakhurst, Texas.—Columbia Lumber Co.'s planing mill.

Philadelphia, Miss.—Central Hotel.

Portsmouth, Va.—Seaboard Air Line Railway Co.'s office building; loss \$50,000. W. L. Seddon is chief engineer.

Spring Hill, Ala.—Spring Hill Hotel; loss \$50,000.

Stanley, N. C.—Carpenter Manufacturing Co.'s plant; loss \$10,000.

Summit Point, W. Va.—N. H. Willis' dwelling at Rock Hall; loss \$8000.

Wortham, Texas.—T. L. Brown's blacksmith and machine shop; loss \$5000.

BUILDING NOTES.

* Means machinery, apparatus or supplies are wanted, particulars of which will be found under head of "Machinery, Proprietary and Supplies Wanted."

Abbeville, S. C.—City Hall.—City has purchased site on which it is stated city hall and offices will be built. Address The Mayor.

Alexandria, Va.—Jail Building.—It is reported that the city will either erect new jail building or repair and remodel present building. Address The Mayor.

Asheville, N. C.—Store Building.—L. Blomberg will erect a two-story brick building 11x44 feet.

Atlanta, Ga.—Boat and Bath House.—P. J. Wesley & Sons, 48 Peters Building, have contract to erect boat and bath house for Atlanta Athletic Club after plans by Edward Dougherty, 313 Candler Building; two stories, frame construction, 110 feet long, steam heat, hot and cold water, electric lights; cost \$3000.

Atlanta, Ga.—Church.—St. Paul's Methodist Church is considering the erection of edifice. Address The Pastor.

Atlanta, Ga.—Dwellings.—Empire State Investment Co., J. T. Moody, president, has purchased land at \$16,000 which will be divided into 26 building lots and residences erected at a cost of \$2500 each.

Atlanta, Ga.—College Building.—W. H. George has contract to erect three-story brick building for the Atlanta College of Physicians and Surgeons, for which Morgan & Dillon were previously reported as preparing plans; cost \$65,000.

Atlanta, Ga.—School Building.—Bids will be opened April 1 for the erection of school

building for which Haralson Bleckley, 618-619 Empire Building, was reported last week as preparing plans; to be two stories of brick and stone, ordinary construction, and cost \$30,000. Blower system of heating, electric lights, etc., will be installed.

Augusta, Ga.—Theater.—The theater reported last week to be erected at Lake View Park by the Augusta Railway & Electric Co. will be 140x75 feet, of mill construction and cost \$12,000; Frank Happ, Macon, Ga., architect.

Baltimore, Md.—Church.—St. Mark's Reformed Church, James M. Mullan, pastor, 2302 Federal street, will erect church building at northwest corner Collington avenue and Hoffman street; one story and basement, 59.6x12.10 feet; stone exterior; terra-cotta trimmings; cast-iron columns; slate roof; sanitary plumbing; steam-heating system. R. H. Frazier & Sons, 220 St. Paul street, and Henry Smith & Sons Company, 116 South Regester street, are estimating on the construction; bids to be in March 10; Charles E. Cassell & Son, architects, Law Building, Courtland near Lexington street.

Baltimore, Md.—Dwellings.—C. B. Burdette, Hoffman Building, 11 East Lexington street, will erect 15 dwellings on Lexington street between Fulton avenue and Monroe street to cost about \$45,000; three stories; brick with stone trimmings; Jacob F. Gerwig, architect, Hoffman Building.

Baltimore, Md.—Restaurant.—The Monumental Brewing Co., Lombard and 7th streets, Highlandtown, has awarded contract to Frederick Decker & Son, 1209 East Biddle street, for the construction of restaurant building at northwest corner York road and Oxford street; two stories, 19.6x78 feet; brick with stone trimmings; cost about \$5000.

Baltimore, Md.—Bulkhead.—The municipal Board of Awards, City Hall, has awarded contract to Benjamin Glenn, bridge builder, 2300 East Baltimore street, for the construction of stone and timber bulkhead in the back basin of the harbor. Major N. H. Hutton, harbor engineer, City Hall, will have charge of the work. Amount appropriated for the work is \$6000.

Baltimore, Md.—Club Building.—The Germania Turnverein Building Fund Association has been organized for the purpose of erecting club building for the Germania Turnverein; president, Henry Hofferher, 1619 McElderry street; vice-president, John Kaiss, 1433 North Patterson Park avenue; secretary, Frederick Lieder, 1241 McElderry street.

Baltimore, Md.—Dwellings.—N. C. Showacre, builder, Forest Park, has been awarded contract by the Kennedy estate for the construction of 75 two and three-story dwellings to be erected on Kennedy avenue and Cromwell street; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Dwellings.—T. Milton Jones, builder, 1520 Light street, will erect 31 two-story brick dwellings on Clement and Bethel streets to cost about \$30,000.

Baltimore, Md.—Dwellings.—The St. Paul Realty Co., Harry E. Gilbert, president, 301 St. Paul street, has commissioned John R. Forsythe, architect, 411 St. Paul street, to prepare plans and specifications for 10 three-story brick dwellings to be erected on 5th street, Walbrook; cost about \$25,000.

Baltimore, Md.—Fire-engine House.—The municipal Board of Awards, City Hall, has awarded contract to Charles L. Stockhausen, National Marine Bank Building, Gay and Water streets, for the construction of fire-engine house at Mt. Royal and Guilford avenues at his bid of \$26,700; two stories, 45x150 feet; terra-cotta exterior with granite base; steel beams; tin roof; tile walls; electric wiring and fixtures; sanitary plumbing; steam-heating system. Edward D. Preston, Inspector of buildings, City Hall, will have charge of the work.

Baltimore, Md.—Office Building and Warehouse.—Morrow Bros., builders, 212 Clay street, will erect a five-story brick addition 16x30 feet to the office building and warehouse they are now erecting at 216 and 218 West Saratoga street.

Baltimore, Md.—Store Building.—E. Allen Lycett, 311 North Charles street, has awarded contract to Edward Brady & Son, 1109 Cathedral street, for the construction of store building at 317 North Charles street; three stories, 23.2x39.7 feet; brick with terra-cotta trimmings; steel beams; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$20,000; Baldwin & Pennington, architects, 311 North Charles street.

Baltimore, Md.—Chapel.—The Baltimore Cemetery Co., 224 North Charles street, has awarded contract to John Hiltz & Son, 3 Clay street, for the construction of one-story brick chapel, 25x30 feet; C. E. Anderson, architect.

Baltimore, Md.—Dwelling.—Frank H. Phelps, Fidelity Building, Charles and Lexington streets, has awarded contract to D. C. Slonaker, 1328 Gilmer street, for the construction of 2½-story frame dwelling on Chelsea avenue to cost about \$5000.

Baltimore, Md.—Dwellings.—Mortimer W. West, 1713 North Fulton avenue, has awarded contract to George L. Dorsey, 34th East Baltimore street, for the construction of five 2½-story frame dwellings on Garrison and Penhurst avenues to cost about \$13,000.

Baltimore, Md.—Vault.—The Baltimore Bridge Co., Bush and Wicomico streets, will erect vault and toilet room at its plant; one story, 13x24 feet, reinforced-concrete construction.

Baltimore, Md.—Dwellings.—Frank Novak, builder, 800 North Duncan street, will erect 24 two-story brick dwellings on Eager Place to cost about \$20,000.

Baltimore, Md.—Dwellings.—James Keelty, 320 East Oliver street, will erect 10 two-story dwellings on Guilford avenue near 24th street to cost about \$14,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Church.—Referring to church to be erected at Roland Park by the Roland Park P. E. Church, the following additional contractors are estimating on the construction: James Farley, 207 North street; Thomas P. Johns, 405 McCullough street, and Frederick Decker & Son, 1209 East Biddle street. Full details concerning the building recently mentioned. Bids to be in about March 10; Ellicott & Emmart, architects, Union Trust Building, Charles and Fayette streets.

Baltimore, Md.—Dwelling.—Stanley Zell of the Motor Car Co., Mt. Royal and Maryland avenues, has commissioned Owens & Sisco, architects, Continental Building, Calvert and Baltimore streets, to prepare plans and specifications for 2½-story frame and stucco dwelling at Roland Park.

Baltimore, Md.—Dwellings.—John J. Watson, Calvert Building, Fayette and St. Paul streets, representing the Cheston Land Co., has awarded contract to C. S. M. Williamson, 18 East Lexington street, for the construction of three frame dwellings on 13th street near Clifton avenue, Walbrook, to cost about \$15,000; Motts & White, architects, 328 North Charles street.

Baltimore, Md.—Greenhouse and Car Barn.—The Loudon Park Cemetery Co., 21 West Saratoga street, has commissioned Owens & Sisco, architects, Continental Building, Baltimore and Calvert streets, to prepare plans and specifications for one-story greenhouse 29x45 feet and one-story car barn 20x50 feet, to be erected at its cemetery on Frederick road.

Baltimore, Md.—Office Building.—Referring to office building to be erected by Maury & Donnelly, Knickerbocker Building, North and Lexington streets, at northwest corner Commerce and Water streets, the following contractors are estimating on the revised plans: John T. Buckley, 916 Bolton street; J. J. Walsh & Son, 1525 Maryland avenue; D. W. & G. H. Thomas, Vickers Building, 225 East German street, and C. C. Watts, 113 Hamilton street; two stories and basement; brick with limestone trimmings; first floor fireproof; steel beams and columns; metal frames and sashes; slag roof; electric wiring and fixtures; sanitary plumbing; steam-heating system. Bids to be in March 8; Tormey & Leach, architects, 323 North Charles street.

Baltimore, Md.—Store Building.—Carl G. Hilgenberg, Carr-Lowrey Glass Co., Westport, Md., as agent for the Hilgenberg estate, has awarded contract to the Unit Concrete Steel Frame Co., Commonwealth Building, Philadelphia, Pa., for the construction of store building at 203 and 205 North Eutaw street; four stories, 41.4x69.8 feet; sandstone exterior; reinforced concrete construction throughout; slag roof; vault lights; ornamental iron; metal frames and sashes; electric wiring and fixtures; sanitary plumbing; steam-heating system. Edward D. Preston, Inspector of buildings, City Hall, will have charge of the work.

Baltimore, Md.—Office Building and Warehouse.—Morrow Bros., builders, 212 Clay street, will erect a five-story brick addition 16x30 feet to the office building and warehouse they are now erecting at 216 and 218 West Saratoga street.

Baltimore, Md.—Warehouse.—Rufus Wood, Cire Baugh & Sons Company, Calvert and Water streets, has awarded contract to F. A. Klunk, 519 West Saratoga street, for the construction of warehouse on Exchange Alley near Commerce street; three stories, 54x49 feet; brick with stone trimmings; steel beams; cast-iron columns; slag roof; electric wiring and fixtures; sanitary plumbing; elevator; Henry J. Tinley, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Warehouse.—The George W. Umbach Company, wholesale liquor dealers, 326 South Hanover street, has awarded contract to Joseph Schamberger, 2122 East Baltimore street, for the construction of warehouse at Hanover street and Perry

alley; three stories, 30x132 feet; brick with granite base and Kilbe stone trimmings; steel beams; cast-iron columns; slag roof; electric wiring and fixtures; sanitary plumbing; hand elevator; Theodore G. Ahrens, architect, 522 Law Building, Courtland near Lexington street.

Baltimore, Md.—Dwellings.—Wm. A. Davidson, builder, 2731 Hampden avenue, will erect 13 two-story brick dwellings on Milton avenue near Chase street to cost about \$13,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Bay St. Louis, Miss.—Theater.—Charles G. Moreau is having plans prepared by R. S. Duval of New Orleans, La., for a two-story brick theater to cost \$15,000.

Beaumont, Texas—Business Block.—F. B. Smith has contract to erect business block for S. Blanchette, W. C. Averill, J. F. Weed of Beaumont and K. B. Seale of Jasper, Texas, for which H. C. Mauer, Park Bank Building, was previously reported as preparing plans; to be partly fireproof, three and two stories, 20x60 feet and 135x100 feet, respectively, and cost \$35,000. Electric elevator will be installed.

Beaumont, Texas—Hotel.—Gus Babin has contract to erect hotel for John B. Goodhue, previously reported; to be five stories, 100x140 feet, of pressed brick, and cost, exclusive of plumbing and heating, \$80,000. L. S. Green, Houston, Texas, prepared the plans. (F. A. Parker was erroneously reported last week as having contract.)

Bennettsville, S. C.—Church.—Presbyterian congregation is having plans prepared by Henry Harrell of New York, N. Y., for proposed \$10,000 edifice.

Birmingham, Ala.—Telephone Exchange.—Bids will be opened March 12 for the erection of five-story steel-frame building for the Southern Bell Telephone & Telegraph Co., main office, Atlanta, Ga. Wheelock, Joy & Wheelock prepared the plans.

Bristol, Va.-Tenn.—School Building.—J. H. Gose, city auditor, will open bids April 2 for the erection of school building. Plans and specifications will be on file after March 15.

Burton, Texas—Store Building.—Ed Schatz has let the contract for a brick store building 47x75 feet with glass front.

Burton, Texas—Bank Building.—Burton State Bank, recently organized with C. W. Homeyer, president, will erect building.

Campbell, La.—Bank Building.—Campbell State Bank has adopted plans for two-story brick building, and bids for the construction will be asked at once.

Cape Henry, Va.—Hotel.—Cape Henry Corporation has been organized with E. B. Foreman, president; Robert Johnston, vice-president; J. Edward Cole, secretary, and W. W. Galt, treasurer, all of Norfolk, Va., to erect a \$30,000 hotel.

Charleston, W. Va.—Church.—Trustees of Holy Redeemer Church will receive bids until March 21 for the erection of edifice. Proposals will be received for the completion of the whole work or in portions named in the bid, accompanied by a suitable bond or a certified check for 5 per cent. of the total bid made payable to George E. Kricker, treasurer, 12 East 6th street. Plans, specifications and building blanks may be seen at office of treasurer. Usual rights reserved.

Charlotte, N. C.—Hospital.—St. Peter's Home and Hospital will erect an addition of 20 or 30 rooms. Rev. Harris Mallinckrodt, rector of St. Peter's Episcopal Church, can give information.

Charlotte, N. C.—Dwelling.—Hunter & Vaughn have contract to erect two-story pressed-brick residence for J. G. Baird after plans by Wheeler, Runge & Dickey.

Chatham, Va.—College Building.—Trustees of the Chatham Episcopal Institute are arranging to rebuild structure recently reported as having burned at a loss of \$25,000.

Chattanooga, Tenn.—Building.—Chattanooga Transfer Co. has secured site and is having plans prepared by Huntington & De Sable for the erection of a three-story building.

Chattanooga, Tenn.—Warehouse.—Huntington & De Sable are preparing plans for a bonded warehouse to be erected by E. R. Betterton & Co.

Columbia, S. C.—Courthouse.—J. H. Felt & Co., 701-3 Shukert Building, Kansas City, Mo., are preparing plans for courthouse to be erected by Boone county, for which \$100,000 of bonds were previously reported voted; of stone and fireproof construction, tile roof, metal stairs, 100x111 feet, steam heat, etc.

Columbia, S. C.—Building.—J. J. Cain has contract to erect three-story pressed-brick building with stone trimmings for Dr. H. T. Lykes of Orlando, Fla., for which Arthur W. Hamby was previously reported as preparing plans.

Columbus, Ga.—Store and Office Building.—Bradley-Taylor-Williams Company is having plans prepared for a three-story store and office building.

Concord, N. C.—Church.—Methodist congregation of Cannonville has purchased site 62x160 feet on which to erect edifice to cost between \$5000 and \$7000; an additional site 70x160 feet on which to build parsonage. Address The Pastor.

Concord, N. C.—Dwelling.—D. A. Caldwell has contract to erect B. L. Umberger's proposed \$5000 residence.

Cooper, Texas—School Building.—City has voted the proposed \$15,000 bond issue for school building. Address The Mayor.

Dallas, Texas—School Building.—Board of Education has adopted plans by Lang & Witchell for proposed high-school building.

Dallas, Texas—Church.—Plans are being prepared for proposed \$20,000 edifice for the Ervay Street Methodist Church. Address The Pastor.

Dallas, Texas—Church.—McKinney Avenue Baptist Church, J. Frank Norris, pastor, is having plans prepared for a \$30,000 edifice.

Dalton, Ga.—Bank Building.—Bearden & Foreman, Chattanooga, Tenn., are preparing plans for bank building reported last week to be erected by C. L. Hardwick & Co.; to be 25x100 feet, equipped with gas and electric lights.

Davis, I. T.—Depots, Hotel, etc.—Davis-Turner Falls Motor Road Co., J. B. Dickinson, secretary, reported incorporated recently, will construct concrete depots at Davis and Turner Falls, build summer theater and other amusement enterprises at Turner Falls, I. T. A \$25,000 company will also be organized to build a clubhouse and summer theater at the Falls, and the Davis-Turner Falls Motor Road Co. can give information.

De Kalb, Texas—School Building.—Board of Trustees of De Kalb Independent School District will open bids March 15 for the erection of a two-story brick school building to cost about \$5000. A certified check for \$250 must accompany each bid. Plans and specifications may be seen at office of R. S. Glenn & Co., architects, Clarksville, Texas, or at the De Kalb Exchange Bank, De Kalb.

Decatur, Ala.—Church.—Catholic congregation has had plans prepared for \$15,000 edifice. Father M. Henry is pastor.

Enterprise, Ala.—School Building.—Lamar Fleming has contract to erect school building (previously reported) after plans by R. B. Smith of Montgomery, Ala.; cost \$22,000.

Fort Worth, Texas—Skating Rink.—Southwestern Amusement Co., E. G. Beach, president, has purchased through Fosdick & Mitchell, agents, site 100x200 feet on which to build skating rink.

Fort Worth, Texas—Warehouse.—Fort Worth Furniture Co. is having plans prepared for the erection of a three-story brick building 35x100 feet.

Grand Isle, La.—Hotel.—LaFitte Hotel & Park Co., Ltd., 809 Hennen Building, New Orleans, La., reported incorporated last week to build hotel, will erect a three-story building 40x140 feet of concrete with cement blocks, fireproof construction, equipped with steam heat, electric lights, passenger and freight elevator, and costing \$300,000. T. B. Singer, Sterling, Ill., is architect.

Greenville, S. C.—Sanitarium.—It is reported that Dr. G. L. Corbett contemplates the erection of a sanitarium.

Greenwood, S. C.—Depot.—It is reported that the Seaboard Air Line Railway will build a passenger depot at a cost of \$7000; W. L. Seddon, chief engineer, Portsmouth, Va.

Guymon, O. T.—Bank Building.—B. M. Ballinger has contract to erect building for the First National Bank, recently mentioned, after plans by Sanford Denny; to be 24x60 feet, of brick, ordinary construction, and cost \$3500.

Hartselle, S. C.—Church.—Baptist congregation is reported as arranging for erection of \$15,000 edifice. Address The Pastor.

Hattiesburg, Miss.—Bank Building.—State Savings Bank, recently organized by J. P. Carter and associates, will erect building.

Havre de Grace, Md.—Depot.—J. S. Rogers Company, Stanwick, N. J., it is reported, has contract to erect depot (previously mentioned) for the Pennsylvania Railroad Co.

Hawkinsville, Ga.—City Hall and Auditorium.—Site has been secured for the erection of proposed city hall and auditorium, and a committee has been appointed to submit plans for a building to cost about \$25,000; P. H. Lovejoy, mayor.

Hempstead, Texas—Courthouse.—Commissioners' Court of Sabine county will receive plans and specifications until March 22 for the erection of courthouse not to exceed \$30,000. Certified check for \$150 must accompany

pany each bid. Usual rights reserved; J. A. Watson, clerk county court.

Houston, Texas—Office Building.—John S. Stewart has purchased site on which to erect office building.

Houston, Texas—Warehouse.—J. H. Meyers, Room 34, Theater Building, prepared the plans and will supervise the construction of warehouse recently reported to be erected by the Farmers & Bankers' Cotton Warehouse Co.*

Hoxie, Ark.—Depot.—Arrangements are being completed for the erection of proposed \$10,000 depot for the St. Louis & San Francisco Railroad, for which George W. Goodlander, Kansas City, Mo., has contract.

Jackson, Miss.—Pythian Hall.—H. M. Quin, secretary Pythian Castle Hall Association, will receive bids until March 28 for the erection of Pythian Castle Hall in accordance with plans and specifications on file in the office of W. S. Hull, architect, Jackson. Committee reserves usual rights.

Jackson Springs, N. C.—Hotel.—Mrs. M. B. Brown, Hotel March, Lexington, N. C., is having plans prepared by Frederick J. Drake, Chicago, Ill., for the erection of hotel near Jackson Springs; to be two stories, 40x100 feet, of fireproof construction with slate roof, and cost \$15,000. Bids for the erection will be opened April 2. Address C. E. Spencer, manager. Mr. Spencer was previously reported as interested in the establishment of health resort near Jackson Springs, for which 114 acres of land had been purchased.*

Jacksonville, Fla.—Business Block.—W. B. Camp has completed plans for two-story business block, 20x60 feet, to be erected by S. S. Goldsbury. Bids for the construction are now being received.

Jacksonville, Fla.—Dwelling.—J. H. Boden has contract to erect residence for Oscar Sewald after plans by H. J. Klutho; to be two stories, 36x46 feet, of frame with slate roof, ivory plaster, etc. Gas and electric fixtures and modern plumbing will be installed.

Kansas City, Mo.—Buildings.—Plans and specifications will be revised and bids re-advertised for the erection of buildings for the street and water departments. (Contract was reported last week as having been let to George W. Goodlander.) Address The Mayor.

Keyser, W. Va.—Office Building.—Chartered: Keyser Office Building Co., with \$10,000 capital stock, by E. C. Klimmel, H. S. Thompson and associates, to erect office building.

Knoxville, Tenn.—Apartment-house.—Jacob L. Nelson will erect a \$10,000 brick apartment-house.

Knoxville, Tenn.—College Building.—Thomases & Turner have contract to erect building for the University of Tennessee, Brown Ayres, president (mentioned last week), after plans by Prof. Charles E. Ferris; to be three stories of brick, 15x70 feet, and cost \$20,000.

Lancaster, Ky.—Bank Building.—Garrard Bank & Trust Co., recently organized, has purchased site on which to erect building.

Lexington, Ky.—Laundry.—Combs Lumber Co. has contract for the erection of laundry building, previously reported, for the Eastern Kentucky Insane Asylum.

Little Rock, Ark.—City Hall and Auditorium.—Plans and specifications have been completed for city hall and auditorium, for which Charles L. Thompson was previously reported as preparing plans; to be three stories of pressed brick, the auditorium to have a seating capacity of 2500. An electric elevator will be installed.

Louisville, Ky.—Office Building.—Underwriters' Realty Co. has been incorporated with \$37,000 capital stock by Donald McPherson, John J. Barrett, P. M. O'Reilly, H. V. Davis and associates, to erect building for the use of insurance agents.

Lynchburg, Va.—Warehouses, etc.—Adams, Paynes & Gileaves, Inc., will erect brick storage warehouses and frame lumber sheds.

Lynchburg, Va.—Store Building.—Kinnier, Montgomery & Co. have let contract to C. W. Hancock & Son for the erection of seven-story building, 65x12 feet, to cost \$30,000. Lewis & Burnham prepared the plans.

Manassas, Va.—Church.—Spelden & Spelden, 705 G street N. W., Washington, D. C., are preparing plans for edifice to be erected by the Baptist congregation; to be 53x78 feet, of frame construction, stone foundation, metal-shingle roof. Hot-water heating plant and wood rolling partitions will be installed.

Memphis, Tenn.—Bank Building.—Solvent Savings Bank & Trust Co., R. R. Church, president, will purchase site and erect building.

Memphis, Tenn.—Warehouse.—Lee Brothers will shortly begin the erection of a five-story warehouse 100x148½ feet.

Memphis, Tenn.—Apartment-house.—Apperson & Hollis have contract to erect apart-

ment-house for Russell Martin, for which Chighizola, Hanker & Cairns were recently reported as preparing plans; to be three stories, of brick, and cost \$50,000. An electric elevator and steam-heating system will be installed.

Mobile, Ala.—Hotel, etc.—It is reported that J. Howard Wilson, general manager of the Mobile Light & Railroad Co., has acquired eight acres of land five miles from the city on Mobile bay, and will establish summer resort, erecting hotel, etc.

Mobile, Ala.—Office Building.—Electric-lighting company has purchased site on which to erect four-story modern brick office building.

Montgomery, Ala.—Capitol Improvements. Capitol Commission has authorized Frank Lockwood to prepare plans for a three-story addition to be erected to the Capitol Building.

Nashville, Tenn.—Church.—Wheeler, Runge & Dickey of Charlotte, N. C., have completed plans for edifice to be erected by Monroe Street Methodist Church; to be 64x100 feet, of brick, having a seating capacity of 900, and cost about \$20,000.

Nashville, Tenn.—Dwelling.—Allan Meadors has let contract for the erection of proposed \$600 brick residence.

Newberry, S. C.—School Building.—Architect has not been selected to prepare plans for high-school building, for the erection of which a \$50,000 bond issue was reported last week as voted. J. B. Johnson is president of school board.

Newberry, S. C.—Courthouse.—A site has been secured on which to erect courthouse for Newberry county, for which \$40,000 bond issue has been authorized. George S. Mower is chairman of building committee.

New Orleans, La.—Building.—Toledoano & Wogan have prepared plans for five-story fireproof building previously reported to be erected by the Equitable Real Estate Co. for the John Deere Plow Co.; cost \$45,000.

New Orleans, La.—Business Building.—Favorot & Liavandals have completed plans for proposed five-story building, 32x140 feet, to be erected by the Equitable Real Estate Co.

Newport News, Va.—Church.—J. H. Brinson has been awarded contract at \$26,000 for rebuilding Newport News Baptist Church, previously reported burned.

Norfolk, Va.—Building.—C. R. Parlett is preparing plans for fireproof building 29x112 feet, to be erected by John L. Roper at a cost of \$15,000.

Norfolk, Va.—Hotel.—E. Tatterson is lowest bidder at \$152,727 for concrete construction and the Betts-Hayden Company at \$170,000 for steel construction of hotel previously reported to be built by the Fairfax Hotel Co. after plans by Breese & Mitchell.

Ocala, Fla.—Courthouse.—Plans by Walter Chamberlain, Birmingham, Ala., have been adopted for courthouse previously reported to be erected by Marion county; to be 82x106 feet, 108 feet high, pressed brick, stone and marble trimmings. Bids for the construction will be opened April 6.

Oklahoma City, O. T.—Warehouse.—H. A. Bauer and T. H. Lindley of Custer, O. T., have purchased site on which to erect a two-story warehouse 50x140 feet for storing broom corn. It is proposed to organize company with \$150,000 capital stock to operate a chain of warehouses in Oklahoma for the storing of broom corn.

Opelousas, La.—Bank Building.—Opelousas National Bank, E. B. Dubuisson, president, will erect brick building.

Paducah, Ky.—Church.—A. L. Lassiter, Rooms 7-8, Yeiser Building, is preparing plans for edifice to be erected by the Methodist congregation, Peter Fields, pastor; frame construction, 48x83 feet; cost \$10,000.

Pax Christian, Miss.—Hotel.—Christian Hotel Co., recently organized at Boston, Mass., with \$500,000 capital stock and George Nichols of Haverhill, Mass., president; Milton D. Malbon, vice-president; J. Sidney Pool, secretary, and Montgomery S. Gibson, treasurer, is completing arrangements for the erection of \$365,000 hotel. It will also have an enclosure, "The Bayou," 54x140 feet, with tiled floor and a large cascade of water and varicolored electric lights at one end.

Pine Grove, W. Va.—Church.—Methodist Episcopal congregation is rebuilding edifice previously reported burned; to be of ordinary construction; main auditorium to be 32x45 feet, classroom 15x24 feet; B. D. & M. C. Price, Atlantic Highlands, N. J., architects, and Wise Bros., contractors.

Port Arthur, Texas—Business Block.—Fred Drunigan has contract to erect two-story brick business block, 75x80 feet, for H. Brinkmann, Pittsburg, Kan.; cost \$15,000.

Raleigh, N. C.—Apartment-house.—Albert L. Murray and associates will erect three

double apartment-houses on site recently acquired.

Raleigh, N. C.—Store and Office Building.—Albert L. Murray and associates have secured site on which to erect three-story store and office building.

Richmond, Va.—Dwelling.—A. C. Bedford, 215 Ivy avenue, has contract to erect \$12,000 residence for Henry Taylor after plans by C. K. Howell. Hot-water-heating plant and electric lights will be installed.

Richmond, Va.—Dwelling.—A. C. Bedford, 215 Ivy avenue, has contract to erect M. Talley's proposed residence. Hot-water heating plant and electric lights will be installed. C. K. Howell prepared the plans.

Richmond, Va.—Dwelling.—A. C. Bedford, 215 Ivy avenue, has contract to erect residence for E. M. Hoadley, for which C. K. Howell was reported recently as preparing plans; to be equipped with hot-water-heating plant, electric lights, and cost \$15,000.

Richmond, Va.—Building.—The building reported recently to be erected by Richardson & Chappell will be four stories, 40x100 feet. W. B. Newell is architect and contractor.

Roanoke, Va.—Building.—Roanoke Auto Co. is having plans prepared by H. H. Hudgins for building reported last week to be erected; to be two stories, 48x92 feet.*

Roanoke, Va.—Office Building.—Roanoke Railway & Electric Co. has purchased site on Salem avenue on which to erect a car barn. This company was mentioned last week as having purchased site for office building and waiting room. Plans and specifications have not been prepared. J. W. Hancock is general manager.

Romney, W. Va.—Bank Building.—First National Bank is arranging for the erection of building.

Shawnee, O. T.—Church.—Christian congregation contemplates the erection of a \$60,000 edifice. Address The Pastor.

Shawnee, O. T.—Building.—Cowen & Crisman have contract at \$22,000 for the erection of three-story brick and stone building previously reported to be erected by F. A. Stone and J. J. Culverson. Contract for plumbing and heating has been awarded to Walter Newman.

Silver Spring, Md.—Bank Building.—First National Bank of Silver Spring will erect a one-story brick building, 25x40 feet, at a cost of \$5000; to be of fireproof construction, equipped with steam heat and electric lights. Plans and specifications have not been prepared. Bids for the construction will be asked about May 1. (This item referred to last week.)*

Smithville, Texas—School Building.—City will vote April 3 on the issuance of \$20,000 of bonds for erection of school building.

Somerset, Ky.—Church.—Main Street Baptist Church is reported as contemplating the erection of a \$15,000 edifice. F. T. McIntyre is pastor.

Spartanburg, S. C.—Library Building.—It is reported that Wofford College will erect a \$25,000 library building.

Staunton, Va.—Hospital.—G. W. Fretwell has contract to erect three-story addition to King's Daughters Hospital.

Sumter, S. C.—Courthouse.—Sumter county will vote March 13 on the proposed issuance of \$30,000 of bonds for the erection of courthouse. Address County Judge.

Sutton, W. Va.—School Building.—Town has voted affirmatively the proposed \$18,000 bond issue for the erection of school building. Address Town Clerk.

Tampa, Fla.—Dwelling.—H. M. Jones has contract to erect Dr. Cotton's proposed \$7000 residence.

Texarkana, Ark.—Hotel.—Ben Collins has let contract for the erection of a two-story brick hotel 100x150 feet of pressed brick, to cost \$30,000, replacing structure recently reported burned.

Washington, D. C.—Apartment-house.—Harry B. Willson, 715 8th street N. W., will erect four-story apartment-house, 150x150 feet, at northwest corner 14th and Harvard streets to cost about \$200,000; fireproof construction; electric wiring and fixtures; steam-heating system; two electric elevators.

Washington, D. C.—Apartment-house.—Robert N. Harper, 467 C street N. W., has commissioned B. Stanley Simons, architect, 931 F street N. W., to prepare plans and specifications for apartment-house at northwest corner 6th and E streets N. E.; four stories and basement, 32x610 feet; brick with limestone trimmings; electric wiring and fixtures; sanitary plumbing; steam-heating system.

Washington, D. C.—Apartment-houses.—L. E. Breuninger, builder, 1122 Dartmouth street N. W., is having revised plans and specifications made by N. R. Grimm, architect, 627 F street N. W., and will erect two instead of

one apartment-house on lot on Roanoke street between 13th and 14th streets; four stories and basement, 50x155 feet; brick with stone trimmings; steel beams; slag roof; fire-escape; electric wiring and fixtures; sanitary plumbing; steam-heating system. Owner will take subbids on construction.

Washington, D. C.—Business Building.—Henry A. Willard, 1416 F street N. W., will erect modern business building at 1422 F street N. W.

Washington, D. C.—Church.—Zion Evangelical Lutheran Church, Carl F. Berger, pastor, 508 P street N. W., has commissioned A. O. von Herbulis, architect, 1116 F street N. W., to prepare plans and specifications for church building to be erected at 6th and P streets N. W.; one story and basement, 44x77 feet; granite and limestone exterior; two towers, 50x83 feet high; fireproof floors and stairways; electric wiring and fixtures; sanitary plumbing; steam-heating system.

Washington, D. C.—Church.—Referring to edifice at 1st street and Rhode Island avenue N. W. by the Rhode Island M. P. Church, John M. Gill, pastor, 38 Rhode Island avenue N. W., the following contractors are estimating on construction: W. E. Speir Company, 1342 New York avenue; S. J. Prescott & Co., 700 13th street N. W.; Charles A. Langley, 310 12th street N. W.; Boyer & Smith, 1206 C street N. W.; Wm. C. Morrison, 1415 Rhode Island avenue; R. W. Morrison, 734 Rock Creek road N. W.; W. E. Mooney, Lenman Building, 1425 New York avenue; George C. Hough, 14th and G streets N. W., and John McGregor, 729 12th street N. W.; one story, 40x80 feet; brick with stone trimmings; slate and tin roofs; electric wiring and fixtures; sanitary plumbing; heating system. Bids to be in March 15; Harding & Upman, architects, 729 15th street N. W.

Washington, D. C.—Dwelling.—A. Erskine Miller, 523 8th street N. W., will erect two ½-story apartment-houses at Petworth, D. C.; brick with stone trimmings, 38x49 feet; tin roofs; gas fixtures; sanitary plumbing; heating system; Speiden & Speiden, architects, 705 G street N. W.

Washington, D. C.—Dwelling.—Arthur Carr, 1349 Maryland avenue N. E., will erect dwelling on G street between 13th and 14th streets N. E.; two stories and basement, 35x32 feet; brick with stone trimmings; tin roof; galvanized-iron cornices; wood-turned columns; hot-air-heating system; Speiden & Speiden, architects, 705 G street N. W.

Washington, N. C.—Lodge Building.—Knights of Pythias are having plans prepared by Architect Simpson of Newbern, N. C., for the erection of a brick building 35x100 feet to cost \$15,000.*

Washington, N. C.—Courthouse.—Beaufort county is considering the erection of a \$30,000 courthouse, and Wiley C. Rodman, 112 Market street, wants to correspond with architects and contractors relative to same.

Washington, D. C.—Warehouse.—The Chr. Heurich Brewing Co., 26th and D streets N. W., will erect warehouse on 26th street between E and F streets N. W.; two stories; brick with stone trimmings; steel beams and girders; slag roof. Samuel J. Prescott & Co., 700 13th street N. W.; Charles Volland, 418 L street N. W.; W. E. Speir Company, 1342 New York avenue N. W., and J. T. Walker & Sons, 1920 N street N. W., are estimating on the construction. E. N. Gray & Co., 316 Maine avenue S. W., have the contract for the iron-work. Bids to be in March 8.

Washington, D. C.—Apartment-house.—Jas. Robbins, builder, 1314 Vermont avenue N. W., will erect four-story brick and stone apartment-house on Massachusetts avenue between 12th and 13th streets; Frank H. Jackson, architect, 1419 G street N. W.

Washington, D. C.—Dwellings.—Wm. M. Galues will erect three two-story brick dwellings at 521-525 Irving street to cost about \$900. Hot-water-heating systems will be installed; N. T. Haller Company, architect, Corcoran Building, 15th and F streets N. W.

Washington, D. C.—Dwelling.—The Potomac Realty Co. has awarded contract to Wm. P. Lipscomb & Co., 1405 F street N. W., for the construction of dwelling at 1709 New Hampshire avenue N. W.; four stories, 25x92 feet; brick with stone trimmings; slag roof; electric wiring and fixtures; sanitary plumbing; hot-air-heating system; cost about \$35,000; Bruce, Price & de Sibour, architects, New York.

Washington, D. C.—Dwelling.—Admiral R. M. Rixey, Navy Department, has awarded contract to Charles A. Langley, 310 12th street N. W., for general alterations to three-story dwelling at 1518 K street N. W. to cost about \$5000. An addition 21x64 feet will be erected and heating system installed.

Washington, D. C.—Store Building.—John Wedderburn has awarded contract to Burgess & Parsons, builders, 627 F street N. W., for remodeling two store buildings at 616 and 618

F street N. W.; A. P. Clark, Jr., architect, 905 F street N. W.

Washington, D. C.—Store Building.—Carl Otto, 733 10th street S. E., has awarded contract to August Getz & Son, Stewart Building, 6th and D streets N. W., for the construction of store building at 1313 E street S. E.; two stories and basement; brick with stone trimmings; hot-water-heating system.

Washington, D. C.—Dwellings.—The Kennedy & Davis Company, 1413 G street N. W., will erect six dwellings at 3106-3116 17th street N. W.; three stories, 20x100 feet; brick with Indiana limestone trimmings; slate roofs; electric wiring and fixtures; sanitary plumbing; hot-water-heating systems; cost about \$45,000; Sherman & Sonneman, architects, 1302 F street N. W.

Washington, D. C.—Convenience Station.—James M. Dunn, 1324 5th street N. W., was the lowest bidder in his bid of \$17,000 for the construction of convenience station at 7th street and Pennsylvania avenue for the District of Columbia; Henry B. F. Macfarland, Henry L. West and John Biddle, commissioners District of Columbia.

Washington, D. C.—Apartment-house.—Referring to apartment-house to be erected on Vermont avenue near Thomas Circle by the Burlington Apartment-House Co. (Wm. H. Moses, Harry C. Moses and Arthur C. Moses, all of W. B. Moses & Sons, 11th and F streets N. W.), T. F. Schneider, architect, Bond Building, New York avenue and 14th street, has been commissioned to prepare the plans for the building; seven stories, 165x210 feet; brick with whitestone trimmings; fireproof construction; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevators; cost about \$600,000. Francis H. Duehay Rochambeau, 815 Connecticut avenue N. W., will erect the building.

Washington, D. C.—Dwelling.—Referring to four-story dwelling recently reported to be erected on T street between Connecticut avenue and Phelps Place by Gen. George M. Sternberg, 2144 California avenue N. W., this project has been abandoned, and General

Sternberg has purchased four-story brick dwelling at 2005 Massachusetts avenue, which will be remodeled; A. P. Clark, Jr., architect, 905 F street N. W.

Washington, D. C.—Dwellings.—William E. Mooney, 721 14th street N. W., has been awarded contract for the construction of two dwellings at 1426 and 1428 Columbia road; three stories, 18x52 feet; brick with stone trimmings; slate and tile roofs; electric wiring and fixtures; sanitary plumbing; hot-water-heating systems; cost about \$14,000; Harding & Upman, architects, 729 15th street N. W.

Washington, D. C.—Apartment-house.—The W. E. Speir Company, 1342 New York avenue N. W., was the lowest bidder for the construction of apartment-house to be erected by Wm. Pitt Kellogg, Hotel Shoreham, on 19th street between Florida avenue and U street N. W.; three or four stories, 63.8x120 feet; brick with granite base and limestone trimmings; reinforced-concrete work; steel columns and beams; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; A. P. Clark, Jr., architect, 905 F street N. W.

Washington, D. C.—Dwellings.—W. C. Freeman, builder, 26 Q street N. W., will erect three three-story brick and stone dwellings at 24, 26 and 28 S street N. W. to cost about \$12,000; Harry Blake, architect, 11th and G streets N. W.

Washington, D. C.—Dwellings.—N. R. Grimm, architect, 627 F street N. W., is preparing plans and specifications for nine dwellings to be erected on 3d street N. E.; three stories; brick with stone trimmings; tile roofs; electric wiring and fixtures; sanitary plumbing; hot-water systems; cost about \$45,000.

Washington, D. C.—Dwellings.—N. R. Grimm, architect, 627 F street N. W., is preparing plans and specifications for six dwellings; location, Harvard street between 13th and 14th streets N. W.; three stories; brick with stone trimmings; tile roofs; electric wiring and fixtures; sanitary plumbing; hot-water systems; cost about \$30,000; architect now taking subbids on construction.

Washington, D. C.—Dwellings.—N. R. Grimm, architect, 627 F street N. W., is preparing plans and specifications for three dwellings on Delaware avenue between B and C streets S. W.; three stories and basement, 20x80 feet; brick with limestone trimmings; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$25,000; architect now taking subbids on construction.

Washington, D. C.—Pier.—The Firth-Sterling Company, Pittsburgh, Pa., has awarded contract to Carter & Clark, 10th-street wharf S. W., for construction of pier 200 feet long

at steel plant it is erecting on Giesboro Point on eastern branch of Potomac river; J. R. Rose, engineer in charge, Home Life Building, 15th and G streets N. W.

Washington, D. C.—Store Building.—J. M. Stein & Co., 413 11th street N. W., has commissioned B. Stanley Simmons, architect, 931 F street N. W., to prepare plans and specifications for reconstruction of store building at 525 13th street N. W. Heating system, electric wiring and fixtures and elevator will be installed.

Winona, Miss.—Church.—Plans by R. H. Hunt, Chattanooga, Tenn., have been adopted for proposed \$15,000 edifice for the First Baptist Church.

Williamsburg, Va.—Jail Building.—B. F. Smith Fireproof Construction Co. of Washington, D. C., has contract at \$4500 for the erection of jail building, previously reported; building to be two stories, 31x37 feet, of reinforced concrete.

Wilmington, N. C.—Business Building.—Central Carolina Construction Co., Greensboro, N. C., has contract to erect three-story brick building for John F. Garrell, for which H. E. Bonitz was reported in January as preparing plans.

Wilmington, N. C.—Dwelling.—C. B. West of Greenville, N. C., has contract to erect proposed manse for the First Presbyterian Church after plans by Architect McMillan; building to be two stories, of frame, brick veneered, and cost \$7500.

Wilmington, N. C.—Hotel Improvements.—R. H. Brady has contract to erect addition to the Orton Hotel, for which Charles McMillan was previously reported as preparing plans.

Winston, N. C.—Store Building.—Wall Huske Company is having plans prepared for three-story building, 50x200 feet, of mill construction.

RAILROAD CONSTRUCTION.

Railways.

Addison, W. Va.—George A. Hechmer, general manager of the Holly River & Addison Railroad at Palmer, W. Va., is reported as saying that surveys are finished and capital secured for the proposed extension of 21 miles, but that no date has yet been set to receive bids. Construction may be done by the company. A. P. Hamilton is chief engineer at Webster Springs; mail via Addison.

Alexandria, La.—The Alexandria, Bayou Macou & Greenville Railway Co., which proposes to build a line connecting the three points named, has organized by electing A. J. Davidson of St. Louis as president, Mr. Davidson being president of the Frisco system, which, it is said, will now build the line. Other directors are C. R. Gray, vice-president; L. F. Parker, R. M. Culp, S. H. Cordill of New Orleans, Nash Collins and T. B. Gilbert, Jr. Surveys were made some time ago by J. D. Garrison of Delhi, La., who projected the line. J. F. Hinckley is chief engineer of the Frisco system at St. Louis.

Atlanta, Ga.—Mr. A. B. Steele, president of the Enterprise Lumber Co., writes the Manufacturers' Record that the Atlanta & St. Andrews Bay Railway Co., of which he is also president, is chartered in Alabama and Florida, and is now being built from Dothan, Ala., to St. Andrews Bay on the Gulf of Mexico, about 85 miles, and grade is completed from Dothan to Cottonton, Fla., about 31 miles. Track is being laid at the rate of half a mile per day. It is expected to let contract for grading between Cottonton and St. Andrews Bay, 55 miles, within the next month or two. After this part of the line is completed it is expected to build from Dothan via Clayton and Hurtsboro direct to Opelika, Ala., about 100 miles. It is then expected to file a charter in Georgia for an extension from Opelika to Atlanta. Other officers of the railway company are G. H. Purvis of Atlanta, vice-president and secretary; Ben W. Steele, second vice-president and assistant manager, and P. J. Domer, chief engineer and general superintendent, both of Dothan, Ala.

Beaumont, Texas.—Reported that Northern capitalists are interested in a proposition to build an electric railway from Beaumont to Port Arthur, about 25 miles. Secretary Spaulding of the Chamber of Commerce may be able to give information.

Beaumont, Texas.—The Gulf & Interstate Railroad will, it is reported, spend about \$15,000 for improvements. W. C. Fordyce is president. Address care of the Commonwealth Trust Co., St. Louis, Mo.

Beaumont, Texas.—Mr. R. C. Welles, general manager Beaumont, Sour Lake & Western Railway, informs the Manufacturers' Record that all work for the next 12 or 18 months will be confined to building track. After that time the terminal plans at Beaumont will be taken up. M. A. Hanson is

chief engineer, and will also be chief engineer of the terminal company.

Baltimore, Md.—President Walter B. Brooks of the Canton Company says that surveys are completed for the proposed belt line through its property. Construction will probably be done by the company.

Bowling Green, Ky.—The Bowling Green & Western Railway has completed a survey for its proposed line from Bowling Green to Horse Branch, where it will connect with the Illinois Central Railway, and it is said that construction will begin June 1.

Bristol, Tenn.—An official of the South & Western Railway is reported as saying that contracts will probably be let within two or three months to build northward from Spartanburg, S. C. M. J. Caples is general manager and chief engineer at Bristol, Tenn.

Brownsville, Texas.—Reported that J. A. Hinman will be chief engineer for the proposed Brownsville, Hidalgo & Northern Railway, organized by Col. Uriah Lott. He was formerly with Colonel Lott on other railroad projects. Survey is to begin immediately from Brownsville to Brazos Santiago.

Charleston, W. Va.—C. P. Peyton, chief engineer of the Charleston, Parkersburg & Western Railway, is reported as saying that the line will be about 60 miles long from Charleston via Sissonville, Spencer and Elizabeth to Parkersburg, W. Va.; also that eight miles have been located, that right of way is being secured, and that it is expected to award contracts this season.

Corbin, Ky.—Reported that the Louisville & Nashville Railroad will build second track on its line from Middlesboro to Corbin, about 14 miles, first revising the line. W. H. Courtney is chief engineer at Louisville, Ky.

Covington, La.—The New Orleans Great Northern Railroad will build a branch to Tylertown to connect with the Fernwood & Gulf Railroad. N. G. Pearsall is general manager at Covington.

Crowley, La.—The Crowley Belt & Terminal Co. has published its charter and proposes to build a line reaching various industries. The directors and incorporators are W. W. Duson, Miron Abbott, A. Kaplan, W. H. Hunter, Jr., W. E. Lawson, P. L. Lawrence, John Green and C. J. Freeland. The officers are: W. H. Hunter, Jr., president; W. W. Duson, vice-president; Miron Abbott, vice-president; W. E. Lawson, secretary; C. J. Freeland, assistant secretary; P. L. Lawrence, treasurer, and J. F. Shoemaker, assistant treasurer. The stockholders are rice-mill owners.

Cumberland, Md.—Mr. J. Q. Barlow, chief engineer of the Western Maryland Railroad, has, it is reported, been given the contract to build the Uniontown & Wheeling Short Line from Uniontown, Pa., to Wheeling, W. Va., 68 miles, the road to be part of the connection between the Western Maryland and the Wabash system. His headquarters are at Cumberland.

Cumberland, Md.—George S. Phillips is reported to be making a survey for a cut-off for the Cumberland & Westernport Electric Railway at Borden Shaft.

Dallas, Texas.—Reported that the Northeast Texas Railroad, now 20 miles long, from Redwater to Munz, Texas, will build an extension from Redwater to Texarkana, about 30 miles. It may also be extended from Munz to Daingerfield or to Hughes Springs. W. J. Moroney of Dallas is vice-president, and G. Munz of Texarkana is president.

Dardanelle, Ark.—The Dardanelle, Ola & Southern Railroad Co. has been chartered to build a line 22 miles long from Dardanelle on the Arkansas river to Ola, Ark., on the Rock Island system. Later an extension south may be made. The directors are C. C. Godman, L. R. McCarty, O. J. Karkey, John B. Crownan, James A. Willson, H. M. Jacoway, Jr., Fred H. Phillips, A. B. Cox and Thomas J. Cotton.

Dublin, Ga.—The Dublin & Southwestern Railway will, it is reported, soon build an extension from Eastman to Cordele or Abbeville, Ga., and it may also build to Milledgeville. E. P. Rents is president at Dublin.

Eureka Springs, Ark.—Mr. George L. Sands, vice-president of the St. Louis & North Arkansas Railroad, writes the Manufacturers' Record that arrangements are about completed to build extensions northwest from Silsbee to Joplin, Mo., and southeast from Leslie, Ark., to the Mississippi river; river terminus not yet fixed; total new construction about 261 miles. No bids have yet been asked for either construction or equipment.

Excelsior Springs, Mo.—An official of the Chicago, Milwaukee & St. Paul Railroad, writing from Chicago to the Manufacturers' Record, says he has no knowledge of any immediate construction proposed for a cut-off from Moseby via Excelsior Springs to a point about three miles west of the latter place. This denies a recent press report.

Fairmont, W. Va.—Reported that the Fairmont & Morgantown Electric Railway has been financed through the Pittsburgh Trust Co. and will begin construction soon. It will be 20 miles long.

Fayetteville, W. Va.—Fayetteville has voted to subscribe \$6000 in bonds for the proposed Fayette & Fayetteville Railroad, in which A. D. Roberts and others are interested.

Fort Myers, Fla.—Reported that the Seminole Power & Ice Co. of Fort Myers will build a trackless trolley line from Fort Myers to Alva on the Caloosahatchee river, 18 miles. Fort Worth, Texas.—Concerning the rumor that the Gulf, Colorado & Santa Fe Railway would extend its yards at Fort Worth, an official informs the Manufacturers' Record that the report relates to the city's local yard, which will cover only about two miles of trackage. Practically all the work at Fort Worth will be done under the present contract and by the company forces.

Fulton, Mo.—The Fulton Commercial Club is working on a plan to secure the building of a railroad 14 miles long from Fulton to connect with the Missouri, Kansas & Texas Railway.

Gadsden, Ala.—J. D. Wilder, tax collector of Cherokee county, is said to be interested in a plan to build an electric railway from Center to Round Mountain.

Glenville, W. Va.—Application has been made to charter the Glenville & Kanawha Railroad Co. to build a line connecting Burnsville, W. Va.; Glenville and Weston, W. Va., about 30 miles. Among the incorporators are Robert L. Ruddell, president of the Glenville Banking & Trust Co.; Howard R. Brannon, cashier of the same company; C. M. Bennett, M. V. Morris, W. J. Holden, S. A. Hays, J. N. Shackelford and R. S. Kidd, all of Glenville.

Greensboro, N. C.—A franchise has been granted by the county commissioners for the proposed electric railway from High Point to Greensboro, 18 miles, work to begin in 30 days. F. J. Justice of Greensboro is reported interested.

Guthrie, Okla.—The Kansas Traction Co., organized to build a line from Parsons via Altamont to Coffeyville, 40 miles, has been chartered in Oklahoma, with headquarters at Newkirk, Okla. The incorporators are Wm. J. Jones and C. N. Petty of Altamont, Kan.; M. E. Williams of Oswego, Kan.; S. T. Bissell and Ralph J. Ramee of Oklahoma City.

Hattiesburg, Miss.—The Mississippi Central Railroad will let contract about April 15 for building its extension (the Natchez & Eastern Railroad), to be about 70 miles long; surveys yet to be made from Brookhaven to Natchez. James Archibald is chief engineer at Brookhaven, Miss.; M. H. McCabe, superintendent and purchasing agent at Hattiesburg, Miss.

Hayneville, Ala.—The Hayneville Railroad has been opened for business from Hayneville to Tyson.

Houston, Texas.—F. L. Dana, secretary of the Houston-Galveston Traction Co., is reported as saying that location surveys and profile have been made for the proposed line, which will be about 50 miles long; also that 75 per cent. of the right of way has been secured and contracts will be let probably this month. Route is from Houston via Genoa, Harrisburg, Webster, League City, Lamarque, Dickinson, La Porte and Texas City to Galveston.

Houston, Texas.—Profile and specifications for four miles of the Burr's Ferry, Brownell & Chester Railway are at the office of J. Randolph Burns, secretary and treasurer, and contract will be let immediately. More than 100,000 cubic yards of earth will be moved. Bids are being received, and Philip G. Omohundro, chief engineer at Beaumont, Texas, will award contract. The entire line will be from Burr's Ferry to Timpong, about 80 miles, and survey is under way between Aldridge and Brownell.

Houston, Texas.—Reported that the Houston, East & West Texas Railway will reduce grades and curves, besides reballing and laying heavier rails. G. F. Hawks is vice-president and general superintendent at Houston.

Hyattsville, Md.—Construction has begun in the District of Columbia on the Anacostia, Brattsville & Brandywine Electric Railway. W. H. Benton is engineer.

Jackson, Miss.—The governor has granted a charter for the proposed Birmingham & Mississippi Southern Railway, of which A. H. Longino of Jackson and others are the incorporators. Line is to run from Birmingham, Ala., via Hattiesburg, Miss., to Baton Rouge, La., with branches to Meridian and Scranton, Miss.

Jackson, Tenn.—The Mobile & Ohio Railroad has, it is reported, begun work on new yards immediately south of Jackson.

Jennings, Garrett County, Maryland.—Charles H. Jennings, lumber operator, and others, who propose to build an electric railway from Frostburg, Md., to Johnstown, Pa., have, it is reported, bought the charter rights and franchises of the Somerset County Street Railroad Co. Line goes via Salisbury and Meyersdale. Among others in the syndicate are George R. Scull and Wm. H. Ruppel of Somerset.

Kansas City, Mo.—J. B. Berry, chief engineer of the Rock Island system, is reported as saying that the general plan for tracks, etc., for the new union depot at Kansas City has been prepared. Besides the Rock Island, the other lines interested are Union Pacific, Frisco, Santa Fe, Chicago, Milwaukee & St. Paul and Chicago & Alton.

Kansas City, Mo.—Mr. M. P. Paret, chief engineer Kansas City, Mexico & Orient Railway, writes the Manufacturers' Record denying the press report that the company is surveying for a line from Barton, O. T., to some point in Louisiana.

Kansas City, Mo.—President R. A. Long of the Shreveport, Alexandria & Southwestern Railway system of Louisiana writes from Kansas City to the Manufacturers' Record denying the report that the company would build an extension from a point in Texas west of Hornbeck through Vernon Parish, La., to New Orleans.

Kentwood, La.—Charter is filed for the Kentwood, Greensburg & Southwestern Railroad to build from Kentwood in Tangipahoa parish southwest to Baton Rouge, and thence either eastward to the Atlantic ocean or southward to the Gulf of Mexico. The directors are Amos Kent, E. E. Moberly, W. C. Kent, A. B. Lee, Robert R. Reid, S. H. Amacker and J. H. Ellis.

Lawton, O. T.—George Baumhoff of St. Louis is reported to be interested in the plan to build an electric railway from Lawton via Fort Sill to the Wichita mountains.

Lawton, O. T.—The Lawton, Denton & Dallas Electric Railway Co., which proposes to build a line from Lawton to Dallas, Texas, 150 miles, has elected directors as follows: W. O. Allen and S. P. Iles of Meers, O. T., and S. E. McCully, J. W. Lowrey, C. S. Henderson and J. T. Chambers of Sanger, Texas. Temporary officers are as follows: J. W. Lowrey, president; J. T. Chambers, vice-president; C. S. Henderson, general superintendent, and S. E. McCully, general manager and secretary.

Little Rock, Ark.—The Spring River, Ashflat & Franklin Electric Railway, Light & Power Co. has been incorporated to build an electric railway from a point on Spring river via Ashflat to Franklin, about 10 miles. The incorporators are S. L. Guthrie, T. W. Simpson, W. O. Wadley, J. W. Bryant, R. L. Hastings, L. D. Phillips, W. E. Brawley, I. G. Ritchie, R. E. Sample, J. H. Franklin, S. P. Turner, W. Clayton, C. D. Ritchie, E. C. Hotchkiss and J. N. Roberts.

Louisville, Ky.—Mr. W. L. Mapother, first vice-president of the Louisville & Nashville Railroad, writes the Manufacturers' Record confirming the report of charter of the Cairo, Mayfield & Nashville Railroad Co. as published in its construction columns.

Louisville, Ky.—The Louisville & Nashville Railroad will, it is reported, build second track from Lebanon Junction to Sonora, Ky., about 26 miles. W. H. Courtenay is chief engineer at Louisville.

Louisville, Ky.—A press report says that contracts have been let for building the proposed Cairo, Mayfield & Nashville Railroad, lately incorporated by President M. H. Smith and other officers of the Louisville & Nashville Railroad.

Mangum, O. T.—John M. Blackburn, chief engineer, will, it is reported, immediately begin survey for the Colorado, Texas & Mexico Railroad from Mangum southward to the Red river and to Chillicothe, Texas.

Mangham, La.—The Mangham & Northeastern Railroad Co. has been chartered to build a line from Mangham northeast via Delhi to Lake Providence, La., and also to maintain ferries and transfers across the Mississippi river. The directors are O. A. Wright, president; McClellan Dodge, vice-president; C. L. Allen, secretary; J. B. Huntington, treasurer; R. K. Boyd, auditor; T. F. McNulty and E. W. Allen. E. T. Lamkin is general attorney.

Marianna, Ark.—The Memphis, Helena & Louisiana Railroad, Missouri Pacific system, is reported to have 15 miles of dump constructed for the connecting link of about 58 miles between Marianna and Memphis. It is said the link will be completed as soon as possible.

Mayfield, Ky.—John W. Landrum is working on a plan to build the proposed Cairo & Tennessee Railroad from Cairo, Ill., through Kentucky to Bristol, Tenn., and thence to

Norfolk, Va., about 775 miles. L. W. Goode of New York is president.

Mobile, Ala.—F. D. Stratton of the construction department of the Mobile, Jackson & Kansas City Railway is reported as saying that the company is considering the proposition of the Meridian (Miss.) Board of Trade to build a branch into that city, but that nothing has yet been decided. Bird M. Robinson is president, 277 Broadway, New York, and H. S. Jones, Mobile, Ala., is chief engineer.

New Orleans, La.—The New Orleans, Crowley & Western Railway, lately incorporated with W. F. Owen as president, is reported as making preliminary surveys for its line from Crowley to New Orleans; offices in the Hibernia Building.

Norfolk, Va.—President J. M. Barr of the Seaboard Air Line writes the Manufacturers' Record that there is no foundation for the press report that the company contemplates building a line between Camden and Charleston, S. C.

Owensboro, Ky.—William Keneffick of Kansas City and others have, it is reported, organized the proposed Chicago, Indianapolis & Evansville Railroad, which will connect Owensboro, Ky.; Evansville, Indianapolis and Logansport, Ind., with Chicago. Mr. Keneffick is president of the company, and it is said that the Carter Construction Co., John B. Carter, president, will build the line.

Palestine, Texas.—J. F. Boyd of St. Louis has, it is reported, begun survey for the Red River & Gulf Railroad from Palestine towards Dallas, Texas.

Paris, Ky.—The Louisville & Nashville Railroad Co. is reported to be considering plans for a line from either Paris or Carlisle to Mt. Sterling, Ky. W. H. Courtenay is chief engineer at Louisville, Ky.

Parsons, Kan.—A franchise has been granted, according to a press report, to R. C. Rawlings for a street railway in Parsons in connection with an interurban electric railway, to run from Chanute, Kan., to Carthage, Mo.

Quanah, Texas.—Reported that the Oklahoma City & Western Railway will be built westward from Quanah to Roswell, N. M., this year. C. G. Jones is president at Oklahoma City, O. T.

Raleigh, N. C.—The Raleigh & Charleston Railroad Co. has elected John Skelton Williams of Richmond, president; Charles T. Williams (formerly of Raleigh), secretary and treasurer, and John M. Turner of Raleigh, general manager. The company operates 40 miles of line between Lumberton and Marion, S. C., and will, it is reported, build northward.

Richmond, Va. (Official).—The Chesapeake & Ohio Railway Co. will immediately begin construction of 16 miles of double track east of Richmond, besides 10 miles between Hawks Nest and Huntington, W. Va., and 15 miles between Huntington and Cincinnati. It will also begin building 20 miles of branch line up Potts creek from Covington, Va. H. Pierce is engineer of construction at Richmond.

Roanoke, Va.—An official letter to the Manufacturers' Record says there is no truth in the report that the Norfolk & Western Railway will build a line to Huntington, W. Va.

Sparks, Ga.—The Sparks Railway & Construction Co. has been chartered to build a railroad from a point on the Georgia Southern & Florida Railway between Lenox and Adel, Ga., to connect with the Atlantic & Birmingham Railway at Moultrie or between Moultrie and Norman Park, about 25 miles. The incorporators are S. G. Etheridge, Claude Adams, B. Z. Whitehurst, A. J. Whitehurst, G. D. Lovett, B. A. Rowland, W. J. McKinney, J. H. McCranie, J. M. Studsill and J. P. Whitehurst, all of Sparks, Ga.

Spartanburg, S. C.—The incorporators of the proposed Spartanburg & Glenn Springs Southern Railway, which projects a line 100 miles long from Spartanburg to Aiken, S. C., will, it is said, operate the line by electricity. They are J. B. Lee and others.

St. Albans, W. Va.—Reported that contract has been let at Richmond, Va., to Carpenter, Frazier & Haley for the 27-mile extension of the Coal River Railroad. The extension is from the mouth of Camp creek, along Little Coal river to Madison, five and one-half miles; thence along Spruce fork for 17 miles, with a branch of five miles up Laurel fork.

St. Louis, Mo.—A stockholders' meeting of the Missouri, Kansas & Texas Railway has decided to issue \$20,000,000 of 4% per cent. bonds for improvements and new construction. S. B. Fisher is chief engineer.

St. Louis, Mo.—President G. W. Hunter of the Louisiana & Northwest Railroad writes the Manufacturers' Record confirming the report that the company has executed a mortgage for \$10,000,000 with the Mississippi

Valley Trust Co. of St. Louis as trustee. Construction plans are not yet sufficiently definite for statement.

Schuylerville, N.Y.—The Nelson & Albemarle Railway Co. has completed its line from Schuylerville to Rockfish, connecting with the Southern Railway.

Staunton, Va.—The Valley Traction Co., which proposes to build an electric railway from Staunton to Middlebrook, Va., has decided to increase its capital from \$100,000 to \$250,000. Richard Hogshead and J. Frank Tannehill have been added to the board.

Stuttgart, Ark.—Roy Underwood, president, and others have organized the Young Men's Business Club and are working in favor of the plan to build a railroad from Stuttgart to Hazen, 18 miles, or perhaps to Devil's Bluff, 25 miles, to connect with the Rock Island.

Tampa, Fla.—The Tampa Northern Railroad Co. has permanently organized with officers as follows: H. M. Atkinson, president; P. S. Arkwright and M. F. Amorous, vice-presidents; R. E. Cullinan, secretary and treasurer. These, with F. M. Sisk, compose the directors. All are from Atlanta. Peter O. Knight of Tampa is attorney.

Tampa, Fla.—The Tampa Terminal Co. has been organized with Peter O. Knight as president and will, it is said, construct terminals on Grassy Island at the mouth of Hillsboro river for the Seaboard Air Line.

Temple, Texas.—George F. Perry of Hamilton, Texas, is reported to be working on a plan to build a railroad between Temple and Thurber, Texas. Name of road is said to be the Texas Northern, and is projected by Henry Knapp, president of the proposed Texas, Oklahoma & Northwestern Railroad. It will be 135 miles long to Wichita Falls.

Thomasville, Ga.—Mr. W. C. Snodgrass writes the Manufacturers' Record that charter has been applied for to build the Thomasville & Gulf Railroad from Thomasville to St. Joseph's Bay, Fla., on the Gulf of Mexico. The company is not yet organized.

Ticknor, Ga.—Concerning the report that the Flint River & Northeastern Railroad would be extended, President Thomas N. Baker informs the Manufacturers' Record that the matter thus far is prospective.

Variety Mills, Va.—The Nelson County & Tye River Railway Co. of Variety Mills, Nelson county, Virginia, has been incorporated to operate a railroad. Frank L. Tapscott of New York city is president, and A. M. Johnson of Variety Mills, Va., is secretary.

Vicksburg, Miss.—The Houston Bros. Lumber Co. will, it is reported, build an electric railway two miles long to connect its plant with Vicksburg.

Street Railways.

Anderson, S. C.—The Anderson Traction Co. has begun construction of the proposed line to Bolton.

Charleston, W. Va.—The Kanawha Valley Traction Co. gives notice that it will apply to the city for a franchise to build a line along Charleston street, the Candler road, Bridge, Pine, Elk and Spring streets, Pennsylvania avenue, the Crescent road, Magazine street and other thoroughfares to reach the new park on the west side. W. E. Chilton is vice-president.

Coalgate, I. T.—Frank V. Archer of Muskogee has secured an electric-railroad franchise in Coalgate.

Roanoke, Va.—The Roanoke Railway & Electric Co., J. W. Hancock, general manager, informs the Manufacturers' Record that it will probably build some extensions this year.

San Antonio, Texas.—The San Antonio Traction Co. has increased its capital from \$200,000 to \$1,000,000, and improvements may be made this year.

Wheeling, W. Va.—The Wheeling Traction Co. proposes to build an extension to Shady-side. W. C. Fawcett is chief engineer.

Yazoo City, Miss.—W. F. Cummings and others are reported to be working on a plan to build an electric street railway, the line to be owned by the city.

Mr. K. M. Morrison's New Connection

The trade will be interested in the announcement that K. M. Morrison of Birmingham, Ala., who was with Messrs. Shock & Fletcher for three years, is now with Messrs. Solon Jacobs & Co., manufacturers' agents, offices in the Woodward Building, Birmingham, Ala. This firm deals in modern machinery of all kinds and undertakes general construction work. Mr. Morrison is in charge of the machinery department, and his past experience will enable him to give purchasers good service. Mr. H. L. Zell is in charge of the building and fireproof construction department.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Asbestos Fiber, etc.—J. S. Cummings, Elkins, W. Va., wants prices on asbestos fiber, mineral wool, graphite, steel balls in different sizes, metal cans (pint and quart sizes), steel shot and lubricating oils.

Boller.—Brownlee Lumber Co., Shubuta, Miss., wants an 80-horse-power return-tubular boiler for 150 pounds steam.

Boiler.—See "Engine and Boiler."

Bottling Machinery.—Palmetto Grocery Co., Mullins, S. C., wants small outfit for bottling soda water.

Bottling Machinery.—J. D. Wood, Woodruff, S. C., wants a small bottling machine for making ginger ale, soda water, etc.; hand machine preferred.

Box-factory Equipment.—See "Printing Machinery."

Box-factory Machinery.—Moore & McFerren, Memphis, Tenn., want complete equipment for box factory, including planers, re-saws, rip saws, cut-off saws, etc.

Brick.—Secretary, Knights of Pythias, Washington, N. C., wants samples and prices of brick.

Brick Machinery.—T. B. Wiley, Sandersville, Ga., wants addresses of manufacturers of sand lime-brick machinery. (See "Cement-block Machinery.")

Bridge Work.—Bids will be received until March 24 at the office of F. M. Guthrie, secretary, Memphis, Tenn., for permanent repairs of steel bridge across the Hatchie river on the Memphis and Cuba road. Plans and specifications can be seen at F. M. Guthrie's office. A forfeit of \$500 must accompany each bid. Usual rights reserved; C. A. Sedinger, bridge superintendent.

Broom Machinery.—John Hardy, Kilnichael, Miss., wants a small broom press.

Building Material.—Farmers & Bankers' Cotton Warehouse Co., Houston, Texas, will want corrugated iron.

Building Materials.—East Huntsville Company, Inc., 201 Citizens' Bank Building, Norfolk, Va., wants prices on building material for 100 frame tenement-houses.

Building Materials.—A. C. Bedford, 2115 Ivy avenue, Richmond, Va., is in the market for all kinds of inside trim, doors, sash, blinds, mantels, framing, lumber, flooring, North Carolina and Georgia pine, etc.

Building Materials.—St. Johns Light & Power Co., St. Augustine, Fla., will want to purchase brick, ironwork, roofing, etc.

Builders' Supplies.—T. F. Donnell, Box 686, Oklahoma City, O. T., wants prices on builders' supplies.

Car Tires.—East Carolina Railway, Henry Clark Bridgers, president, Tarboro, N. C., wants to purchase four steel tires such as are used on hand cars; to be 31 inches inside diameter and about 1½ inches thick; to be put on an automobile so as to run it on rails.

Cars.—See "Railway Equipment."

Cement.—City of Wichita Falls, Texas, wants to purchase cement for crossings. Address The Mayor.

Cement-block Machinery.—T. B. Wiley, Sandersville, Ga., wants addresses of manufacturers of cement-block machinery. (See "Brick Machinery.")

Cement Machinery.—William Sampson, P. O. Box 299, Cincinnati, Ohio, wants prices on machinery, kilns, etc., for grinding and burning the raw materials for making Portland cement.

Contractors' Equipment.—See "House-moving Equipment."

Cotton-leaf Machinery.—See "Metal-working Machinery."

Crushing Machinery.—J. D. Ozier, Corinth, Miss., wants stone-crushing machinery for all kinds of concrete work.

Dredging.—Bids will be received until April 1 at the United States engineer office, 22d and K streets N. W., Washington, D. C., for

dredging in Breton bay, Maryland, and in Mattaponi and Pamunkey rivers and Occoquan and Carters creeks, Virginia. Information furnished on application. Spencer Cosby, captain, engineers.

Electrical Equipment. — See "Telephone Equipment."

Electrical Equipment. — Arlington Roller Mills, Flagle Bros., proprietors, Arlington, Ky., wants dynamo from 40 to 350 lights.

Electric-light Plant. — City of Cartersville, Ga., wants to correspond with electrical engineers and builders of machinery relative to plans and estimate of the cost of constructing municipal electric-light plant; Geo. S. Cobb, chairman electric-light committee.

Electric-light Plant. — Board of Public Works, Bamberg, S. C., has postponed the date for opening bids for the construction of electric-light plant from March 15 to March 22. Construction work to include two 100-horse-power high-pressure boilers with cross-flue and stack, one 150-horse-power Corliss engine, one 100-kilowatt A. C. two or three-phase revolving-field or inductor generator, 31 arcs, 25 50-candle-power series lamps with regulator, 1000-light transformers and meter capacity, pole line, brick building. For specifications and forms of proposal address A. W. Knight, secretary board of public works; J. B. McCrary, engineer, Empire Building, Atlanta, Ga. (This item mentioned last week.)

Elevator. — Roanoke Auto Co., Roanoke, Va., wants prices on elevators.

Elevator. — T. F. Donnell, Box 686, Oklahoma City, O. T., wants prices on freight elevator.

Engine. — Stanton Foundry & Machine Co., wants 30-horse-power engine. Address H. M. de Montmoller, Palatka, Fla.

Engine. — D. A. Layton, Marion, S. C., wants a 60-horse-power center crank plain throttling-valve or automatic engine for Marion (S. C.) delivery: new or second-hand.

Engines. — R. E. Moore, Decatur, Texas, wants prices on Fairbanks-Morse gasoline engines.

Engines. — Columbus Showcase Co., Columbus, Ga., wants to buy cheap for cash a second-hand gasoline marine engine from 15 to 25 horse-power for screw-propeller towboat.

Engines. — Central Concrete Construction Co., 81 Todd Building, Louisville, Ky., wants gas engines.

Engine and Boiler. — Arlington Roller Mills, Flagle Bros., proprietors, Arlington, Ky., wants Corliss engine and boiler.

Engines and Boiler. — Leonard Vyne, Nicarao, N. C., wants 20 to 25-horse-power gasoline engine to run portable saw-mill, 18 to 25-horse-power portable boiler and engine—new or good second-hand.

Fiber Machinery. — J. F. Adams Engineering Co., Calle de Cuba, 76 y 78, Room H, Havana, Cuba, wants addresses of manufacturers of machinery for making small wax matches.

Metal Book Shelving. — J. H. Felt & Co., 701 Shukert Building, Kansas City, Mo., want prices on metal book shelving.

Metal-working Machinery. — Lily Mill & Power Co., Shelby, N. C., wants addresses of manufacturers of the Standish foot-power machine for spinning cotton ties.

MII Supplies. — Moore & McFerren, Memphis, Tenn., want belting, shafting, etc.

Mineral Wool. — See "Asbestos Fiber, etc."

Paving. — Mayor and Board of Aldermen, Alexandria, La., will open bids March 20 for paving with concrete and curbing with cement various sidewalks in accordance with plans and specifications on file in the city engineer's office. Usual rights reserved: E. F. Hunter, city clerk.

Paving. — George C. Wimberly, city engineer, El Paso, Texas, will receive bids until March 28 for furnishing material and labor for paving all streets and parts of streets embraced in Improvement District No. 1. Bids will be received on sheet asphalt, rock asphalt, vitrified brick, bitulithic or a combination of these materials; surface to be covered is approximately 90,000 square yards, and the material to be used to be selected by the city after bids are opened. Specifications can be had by applying to the office of city engineer after March 10. Certified check for \$5000, payable to Charles Davis, mayor, must accompany each bid. Usual rights reserved.

Piping. — See "Water-works, etc."

Plow Manufacturers. — Frank Beasley, Lyons, N. C., wants to correspond with manufacturers relative to making a one-horse disc cultivator in quantities.

Plumbing. — C. E. Spencer, Jackson Springs, N. C., wants bids on plumbing.

Printing Machinery. — Ronda Coop & Egg Case Co., Ronda, N. C., wants machinery for printing fruit-tree labels.

Railway Car Tires. — See "Car Tires."

Railway Equipment. — D. A. Layton, Marion, S. C., wants six side-dump cars, standard gauge, five or six yards capacity, to haul clay with a locomotive; also wants coupling.

Railway Equipment. — Title Guarantee & Trust Co., Benjamin Thompson, chief engineer, 425 American National Bank Building, Tampa, Fla., wants 100 flat cars, 36 feet long, 60,000 pounds capacity; 20 box cars, same length and capacity; locomotive for construction work and mixed freight and passenger service afterwards.

Holsting Engine. — H. C. Colorado Building, Washington, D. C., wants 10 to 20-horse-power double-drum holsting engine with boiler.

Holsting Engine. — D. A. Layton, Marion, S. C., wants a double-cylinder double-drum holsting engine without boiler, about 6x8 or 8x10-inch cylinders; want engine to haul car of clay upstairs and carry car back; Marion (S. C.) delivery.

House-moving Equipment. — Frank T. Collins, Chickasha, I. T., wants addresses of manufacturers of house moving trucks (steel) and house-moving tools, such as ratchet screw jacks, steel cable, capstans, etc.

Ice Machinery. — John K. Myers, Warren-ton, N. C., wants prices and catalogues on machinery and equipment for ice plant of small capacity.

Ice Machinery. — E. R. Monroe, Brookneal,

Va., wants prices on machinery and equipment for small ice plant.

Ice Plant. — Ilulen Milling Co., Dearborn, Mo., wants a second-hand ice plant; 10 to 25 tons capacity.

Laundry Machinery. — Steam Laundry care Manufacturers' Record, Baltimore, Md., wants information as to cost of machinery, etc., for the establishment of steam laundry in a town of 3000 population.

Light Fixtures. — Bids marked "Proposals for Lighting Fixtures, United States Court-house and Postoffice, Elizabeth City, N. C." and addressed to the Secretary of the Treasury, Treasury Department, Washington, D. C., will be received until March 14 for manufacturing and placing in position in complete working order in the United States Court-house and Postoffice Building, Elizabeth City, N. C., certain combination gas and electric fixtures. Drawings, specifications and blank forms of proposal can be obtained on application to the Department. Partial bids will not be considered. Proposals will only be received from actual manufacturers of lighting fixtures. Certified check for 10 per cent. of amount of bid must accompany each proposal. Usual rights reserved.

Lubricating Oils. — See "Asbestos Fiber, etc."

Machine Tools. — Gibbes Machinery Co., 804 West Gervais street, Columbia, S. C., wants prices on lathe and shop machinery.

Machine Tools. — Kirchdorfer Automobile Co., 1700-1702 Baxter avenue, Louisville, Ky., wants prices on lathe and shop machinery.

Marine Engine. — See "Engine."

Match Machinery (Wax). — J. F. Adams Engineering Co., Calle de Cuba, 76 y 78, Room H, Havana, Cuba, wants addresses of manufacturers of machinery for making small wax matches.

Metal Book Shelving. — J. H. Felt & Co., 701 Shukert Building, Kansas City, Mo., want prices on metal book shelving.

Metal-working Machinery. — Lily Mill & Power Co., Shelby, N. C., wants addresses of manufacturers of the Standish foot-power machine for spinning cotton ties.

MII Supplies. — Moore & McFerren, Memphis, Tenn., want belting, shafting, etc.

Mineral Wool. — See "Asbestos Fiber, etc."

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Shears. — Florida Cornice & Roofing Co., Jacksonville, Fla., wants to buy a 10-foot shear.

Sheet-metal Brakes. — Florida Cornice & Roofing Co., Jacksonville, Fla., wants sheet-metal brakes.

Shingle Machinery. — J. M. Boutwell, Alabama City, Ala., wants addresses of manufacturers of shingle machinery.

Starch Machinery. — B. L. Susman, Washington, N. C., wants addresses of manufacturers of starch machinery.

Steel Cable. — See "House-moving Equipment."

Steel Ceiling. — Roanoke Auto Co., Roanoke, Va., wants prices on steel ceiling.

Steel Balls. — See "Asbestos Fiber, etc."

Steel Rolls. — Gibbes Machinery Co., 804 West Gervais street, Columbia, S. C., wants a set of steel rolls suitable for steel stock No. 10 or thinner and taking up to 48-inch width.

Steel Shot. — See "Asbestos Fiber, etc."

Steel Wheels. — C. B. Ford Company, Richmond, Va., wants 10 16 inch steel wheels having concave four-inch tires, hubs bored 1½x4½ inches long; also 20 36-inch steel wheels having concave four-inch hub bored 1½x4½ inches long. State price f. o. b. Richmond.

Steel Tires. — See "Car Tires."

Railway Equipment (Electric). — St. Johns Light & Power Co., St. Augustine, Fla., will want to purchase 10 electric passenger cars, light freight cars, rail ties and other necessary railway equipment.

Railway Equipment. — Brownlee Lumber Co., Shubuta, Miss., wants two or three miles of 30-pound steel rail.

Railway Equipment. — Central Concrete Construction Co., 81 Todd Building, Louisville,

Ky., wants industrial cars for yard, wagons for carrying blocks, sand and cement.

Roofing. — See "Building Materials."

Roofing. — C. E. Spencer, Jackson Springs, N. C., wants bids on slate roofing.

Safe. — First National Bank of Silver Spring, Silver Spring, Md., wants prices on safe for bank.

Sawing Machinery. — Southern States Pine Products Co., Savannah, Ga., wants rigging for sawing off stumps close to the ground by hand power, also by steam power.

Saw-mill Machinery. — Leonard Vyne, Nicarao, N. C., wants one log-beam saw-mill to carry 56-inch saw to cut 20 feet long, one swing cut-off saw, one Williamsport two-saw edger.

Scales. — Farmers & Bankers' Cotton Warehouse Co., Houston, Texas, will want scales.

Screw Jacks. — See "House-moving Equipment."

Sewerage System. — See "Water-works, etc."

Sewerage System. — City Clerk, Oklahoma City, O. T., will receive bids until March 19 for the construction of a main storm and sanitary sewer system. Information furnished on application to W. C. Burke, city engineer. Plans, profiles and specifications may be obtained on deposit of \$15.

Sewerage System. — Bids will be received until March 19 at the office of Henry B. F. Macfarland, Henry L. West and John Biddle, commissioners, Washington, D. C., for constructing outlet section and tide-gate chambers, Four-and-a-half-street high-level intercepting sewer, sewage-disposal system, in the District of Columbia. Specifications and forms of proposal may be obtained on application.

Sewerage System. — City of Georgetown, Ky., R. H. Anderson, mayor, will receive bids until April 11 for constructing four miles, more or less, of pipe sewers and appurtenances. Plans may be examined at the City Hall, Georgetown, or at the office of John W. Alvord and Charles B. Burdick, engineers, 120 Hartford Building, Chicago, Ill.

Sewerage System. — Bids marked "Proposals for Constructing Sewer System," and addressed to L. Hilton Green, chairman board of bond trustees, Pensacola, Fla., will be received until April 15 for constructing a system of storm-water drains and sanitary sewers. Certified check for \$5000 drawn upon a national bank and made payable to the board of bond trustees must accompany each bid. The work to consist of approximately 43 miles of brick, cast-iron, terra-cotta and concrete sewers and drains, with their several appurtenances, from eight inches to eight feet in diameter. Plans may be seen and specifications and blank forms of proposals may be obtained either of L. Hilton Green, Pensacola, Fla., or at the office of T. Chalkley Hatton, consulting engineer, 608 Market street, Wilmington, Del. Usual rights reserved.

Shears. — Florida Cornice & Roofing Co., Jacksonville, Fla., wants to buy a 10-foot shear.

Sheet-metal Brakes. — Florida Cornice & Roofing Co., Jacksonville, Fla., wants sheet-metal brakes.

Shingle Machinery. — J. M. Boutwell, Alabama City, Ala., wants addresses of manufacturers of shingle machinery.

Starch Machinery. — B. L. Susman, Washington, N. C., wants addresses of manufacturers of starch machinery.

Steel Cable. — See "House-moving Equipment."

Steel Ceiling. — Roanoke Auto Co., Roanoke, Va., wants prices on steel ceiling.

Steel Balls. — See "Asbestos Fiber, etc."

Steel Rolls. — Gibbes Machinery Co., 804 West Gervais street, Columbia, S. C., wants a set of steel rolls suitable for steel stock No. 10 or thinner and taking up to 48-inch width.

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Steel Tires. — See "Car Tires."

Stump Sawers. — See "Sawing Machinery."

Suction Dredges. — Bids will be received until April 3 at the office of the Isthmian Canal Commission, Washington, D. C., for furnishing two seagoing suction dredges. Blanks and full information may be obtained at office of D. W. Ross, general purchasing agent, Washington, D. C., or the offices of the assistant purchasing agents, 24 State street, New York, N. Y.; Custom-house, New Orleans, La.; 36 New Montgomery street, San Francisco, Cal., and 410 Chamber of Commerce Building, Tacoma, Wash.; also

from chief quartermaster, Department of the Lakes, Chicago, Ill.; depot quartermaster, St. Louis, Mo.; depot quartermaster, Jeffersonville, Ind.; chief quartermaster, Department of the Gulf, Atlanta, Ga., and the Commercial Club, Mobile, Ala.

Tank and Tower. — See "Water-works."

Telephone Equipment. — R. E. Moore, Decatur, Texas, wants prices on cable, 25, 50, 100 pr.; also terminals for office and cable, batteries, arresters, backboards and generators, magneto type, pole changers, etc.

Telephone Equipment. — Eli B. Davies, care Foss Mutual Telephone Co., Edwardsville, O. T., wants telephones, wire, switchboards, poles, telephone fixtures, etc.

Toothpick Machinery. — Gibbes Machinery Co., 804 West Gervais street, Columbia, S. C., wants addresses of manufacturers of toothpick machinery.

Traction Engines. — G. H. Morrison, Fredericksburg, Va., wants a 15-horse-power traction gasoline engine for general farm use.

Trucks. — Farmers & Bankers' Cotton Warehouse Co., Houston, Texas, will want trucks.

Vacuum-cleaning System. — James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids March 22 for the vacuum-cleaning system complete in place for the United States custom-house building, Baltimore, Md., in accordance with drawings and specifications, copies of which may be had at office of supervising architect or at the office of Hornblower & Marshall, Washington, D. C., at the discretion of the supervising architect.

Vault Doors. — J. H. Felt & Co., 701 Shukert Building, Kansas City, Mo., want prices on vault doors.

Wagons. — See "Railway Equipment."

Water-distilling Plant. — J. S. Cummings, Elkins, W. Va., wants to purchase a water-distilling plant suitable for a city of 5000 population.

Water-works. — J. W. Powell, mayor, Bellingham, Texas, will open bids March 16 for furnishing all material and labor necessary to remodel the pipe system, build masonry dam, etc., for the city water-works; estimated cost \$14,000. Plans and specifications may be seen at the mayor's office, also at office of John B. Hawley, consulting engineer. A certified check for \$500, made payable to the mayor, must accompany each bid. Usual rights reserved.

Water-works, etc. — W. T. Pace, Franklin, Va., will receive bids until March 27 for the construction of water-works and sewerage system for the town of Franklin; about 350 tons of cast-iron pipe and specials, tower and tank, steam pump and connections, 55 double-nozzle fire hydrants, valves and boxes, piping, digging, back-filling; about 20,000 feet of 6-inch, 8-inch, 10-inch, 12-inch and 15 inch salt-glazed sewer pipe, 24 feet of 16-inch, 60 feet of 12-inch and 12 feet of 10-inch cast-iron pipe; about 600 Y branches and tees, 30 manholes, 12 flush tanks, 30 lamp-holes, 6 hose-flush openings. Certified check for \$250 must accompany each bid. Plans and specifications will be ready March 12. Specifications sent on application to Chas. S. York, consulting engineer, 1526 East Biddle street, Baltimore, Md.

Water System. — Bids marked "Proposals for the Extension of the Water-Distribution System at Fort Washington, Md." and addressed to First Lieut. Willis R. Vance, Artillery Corps, U. S. A., constructing quartermaster, Fort Hunt, Va., will be received until March 16 for the extension of the water-distribution system at Fort Washington, Md. Information regarding plans and specifications may be obtained on application.

Wiring Machinery. — Ronda Coop & Egg Case Co., Ronda, N. C., wants machinery for wiring fruit-tree labels.

Woodworking Machinery. — See "Shingle Machinery."

Woodworking Machinery. — See "Box-factory Equipment."

Woodworking Machinery. — R. M. Liggett, Bingham, Tenn., wants to purchase a good second-hand surfer with not less than a 12-inch bed.

Woodworking Machinery. — Peacock's Iron Works, Selma, Ala., wants a good second-hand small planer and matcher.

Woodworking Machinery. — See "Saw-mill Machinery."

Some Machinery for Sale.

An opportunity is offered buyers of machinery to purchase the equipment of the machine shop, woodworking and metal-working plant of the Richards Machine Co. at Atlanta, Ga. Written proposals for the shop, tools and entire stock will be received until noon of March 20. For information address Owens Johnson, Liquidator, 401 Peters Building, Atlanta.

MEXICO.

Electric-light and Power Plant.—The Suitepec Electric Light & Power Co. has been incorporated with a capital stock of \$200,000 to construct electric-light and power plant in Suitepec, Mexico, by Ashley T. Cole, Alexander Keogh, Thomas L. Hughes, James R. Ford, Jr., Isaac M. Sutton and Ernest L. Dane, all of New York.

Flour Mills.—Molinas de la Colmena, S. A., has been incorporated with a capital stock of \$100,000 to erect flour mills with a capacity of 35,000 kilos per day at Saltillo, Coahuila; Genaro de la Fuente, president; Marcos Recio, treasurer, and Geronimo Siller, secretary.

Mining.—The La Esperanza Mining Co., main offices in Dallas, Texas, has been incorporated with a capital stock of \$1,000,000 to operate gold and silver mines in Zacatecas,

State of Zacatecas. The capacity of the mine at present will be about 20 tons per day. Officers of company are H. A. Taylor, president and general manager; W. T. Medders, secretary and acting treasurer, both of Dallas, Texas, and B. C. Spaulding, vice-president and superintendent of mines, Zacatecas, Mexico.

Railways.

Steam Railroad.—Contract is reported let to build the Allende Garza Galan Railway from Allende, Mexico, to Del Rio, Texas, 200 kilometers, work to begin immediately. The road is financed by General Trevino, who owns land all along the proposed line.

Steam Railroad.—The Mexican Central Railway has made surveys for its proposed branch from Ocotlan to Atotonilco and will shortly issue orders for its construction. Lewis Kingman is chief engineer at the City of Mexico.

SOUTHERN CITY INDUSTRIAL NOTES

[Special Correspondence Manufacturers' Record.]

Jacksonville, Fla., March 1.

The prominent firms of this city include Messrs. Field & Taylor (Julian Field and Frank E. Taylor), brokers in cottonseed products and fertilizers. They represent a number of mills, including the Taylor Manufacturing Co., Columbia, S. C.; Central Oil & Fertilizer Co., Cordele, Ga.; Lathrop Cotton Oil Co., Hawkinsville, Ga., and Hogansville Cotton Oil Co., Hogansville, Ga. The office here is a branch of the offices of Mr. Field in Columbia, S. C., and Greenville, Miss.; headquarters in Atlanta, Ga. The firm's intimate knowledge of the cotton-oil business, acquired through years of practical work, together with its well-known standing in the trade generally, is an assurance of being successful in conducting this Jacksonville office, which was only recently established.

The Pittsburgh (Pa.) Gauge & Supply Co. has a Southern representative here in R. C. Scott, No. 14 Vedeman Building. Mr. Scott reports a good demand for the Pittsburgh Company's products and for other goods in which he deals. He takes contracts for complete piping installations, Morton dry-kilns, steam-heating systems and irrigating plants.

Messrs. L. B. Lee & Co. handle large properties in timber and turpentine lands, the latter being their specialty. The firm's list of properties for sale includes orange groves, phosphate and kaolin lands, fruit and vegetable lands, etc., throughout the State.

The McCarrel Compo-Stone Co. finds the demand unusually heavy for its specialty—compo-stone. This construction material is manufactured on a large scale, and at the same time the company is a general contractor and builder. Other features of its operations consist in the fashioning of columns, caps, steps, coping, balusters, brackets, friezes, cornices, traceries, gargoyles, moldings, courses and broken ashlar. Among recent contracts closed and executed in part may be mentioned the stonework and construction material for St. John's Church, Snyder Memorial Church, Jacksonville Armory, Gainesville Episcopal Church, the State University and the new residence of Colonel Kay. The McCarrel plant comprises a complete mechanical equipment under the supervision of Robert McCarrel, president of the company, who has had many years' experience in construction work generally.

The hardware trade is represented by the O'Donald & Taylor Company. This enterprise has recently been sold to Messrs. Smedley & Rogers, who will continue the business. The new firm is composed of experienced hardware men, Mr. Smedley having for several years held a responsible business position with the Jones Hardware Co.

Another Jacksonville enterprise, to which it is interesting to refer, is the Pure White Turpentine Co., which has stills at Live Oak and Paxton, Fla., and one in course of construction at Kingston, N. C. It is the intention of the company to install additional stills at desirable locations throughout the pine belt. The process, which permits of rapid distillation comparatively, produces about 75 gallons of water-white turpentine, free from ill-smelling odors and other objectionable features. The distilling apparatus is especially constructed according to the technical requirements of the process. The latter is covered by patent, H. B. Snell, the president of the company, being the inventor. The company is capitalized at \$100,000. Operations were commenced during the fall of 1905, and while quantities in the proportion mentioned have been regularly produced, every gallon has gone into home consumption as distinct from the export trade, thus indicating the opinion of the American paint and varnish trade on the merits of the products of the Pure White Turpentine Co.

Coast system. The Stanton Foundry & Machine Co. possesses superior facilities for loading and unloading. Castings of the heaviest size are molded. In this connection the firm has just completed an order for three box-car loads of manholes, 450 pounds each, for Lake City, Fla. Propellers of various sizes are cast and kept in stock. Among recent orders for phosphate-rock-grinding mills received are several for the Dalton Phosphate Co. of Gainesville and Dalton, Fla., and mills for each of the Central Phosphate Co.'s plants in Tennessee, Georgia, Florida and South Carolina. Mr. Christopher Stanton is president of the company, and Mr. H. M. de Montmoller, secretary and treasurer. The last named is also secretary of the Board of Trade, and his zeal in behalf of Palatka's future, his intimate knowledge of the city's requirements and his earnestness in advancing Palatka's interests peculiarly qualify him for the positions he holds.

An important project on foot is the construction of a roadway 150 feet wide from Palatka to Jacksonville, along the west bank of the St. Johns river, 75 miles. This is receiving considerable attention, and is contemplated for carriages and automobiles on either side with an electric railway in the center. Sufficient funds have been subscribed to cover initial investigations and surveying. A part of the proposition is to induce Duval, Clay and Putnam counties to defray the expense of grading, construction and permanent maintenance. Engineers are now making surveys for the Duval county commissioners. This proposed roadway would connect a number of famous resorts and pass through a picturesque and inviting country with wood and water on either side.

Messrs. Martin Griffin & Co. are leading wholesale and retail hardware merchants, carrying a complete line of supplies, besides conducting steamfitters, tinsmiths and plumbing shops. They are prepared to submit estimates on work of that character, offering to meet Jacksonville prices and guarantee their work.

Messrs. J. D. Points & Co. recently established salesrooms and workshops. They are pipecutters, steamfitters and sheet-metal workers, having a complete modern plant for this purpose. The firm carries a heavy line of plumbers' and tinsmiths' supplies, baths and sanitary outfitts of the latest types, and is in a position to assume contracts for schoolhouses, churches, hotels, residences and other buildings.

The Kennerly Hardware Co. was established in 1896 by S. J. Kennerly, who remains today the principal in the enterprise. This company has a general hardware store, besides a pipefitting and plumbing department, with a roofing and sheet-metal division. It is prepared to make estimates on all kinds of pipefitting, plumbing and sheet-metal work generally, warranting its workmanship to be executed in the best manner.

ST. AUGUSTINE.
[Special Cor. Manufacturers' Record.]
St. Augustine, Fla., March 6.

Gratification at the highly prosperous condition of this city, apart from its growth as a never-falling attraction to tourists from every quarter of the country, was expressed to me by Mayor Boyce and President McWilliams of the Board of Trade. This, the oldest town on the North American continent, is making steady progress from an industrial standpoint, and the following excerpt

from Mr. McWilliams' annual report as president of the Board of Trade will prove interesting:

"During the past 12 months there has been an increase of \$250,000 in the taxable value of the property in the city and a corresponding increase in the county."

"Many new enterprises have been started and those already established have been enlarged. I briefly call your attention to a few of them."

"The cold-storage plant of Draude & Leighton has been built at a great expense and affords a strong evidence of the confidence this firm has in the permanent growth and prosperity of our city. Their plant is second to none in the State."

"Practically during the last year the People's Bank for Savings has been organized and established, and its success speaks most eloquently for the financial well-being of our people."

"The Florida East Coast Railway offices and shops have been enlarged and now give employment to a greater number."

"The St. Augustine Lumber Co. has been established, has proven successful and points as another index to the upbuilding of our city."

"The installing of an electric-light plant and the furnishing of electric lights to our people in the near future is one of the marked improvements of the past year, and let us hope that during the coming year we will have the convenience of being transported about the city upon electric cars."

"There has been established a steam laundry thoroughly equipped with all the most modern machinery. Its present success speaks well for its permanency."

"The Florida Vegetable Co. of Hastings has erected a cold-storage plant, and its establishment will undoubtedly be the means of developing Hastings and the country in that vicinity, inducing the farmers there to raise supplies for the same, thereby affording them greater opportunity for their material benefit."

"We have a good surplus in your treasury, and our membership has increased from 18 to 42 members."

"The past year has been one in which this board has not been inactive. Its members have been attentive and keenly alive to its importance as one of the means of bringing about the upbuilding and development of our city and county."

"In April last this board obligated itself to the State Board of Control to furnish additional land upon which to erect a permanent building for the Florida School for the Deaf, Dumb and Blind, the land to cost \$6000. The committee having that matter in charge has secured many generous donations, one from our public-spirited Board of County Commissioners, and I feel it is only a question of a short time before the entire amount will be raised and a deed furnished to the State Board of Control for said land."

"This board has had many important matters before it looking to the improvement and development of our city and county, and to which its members have given their attention and untiring energy, notably the matter of the erosion to Anastasia Island, the re-establishment of St. Francis Barracks and the installation of a sewerage system."

An increase of permanent residents amounting to 5000 is reported for St. Augustine during the past year. This is largely the result of the efforts of the Board of Trade.

JOHN BANNON.

INDUSTRIAL NEWS OF INTEREST**Roberts & Abbott in Philadelphia.**

The Roberts & Abbott Company, engineers, Cleveland, Ohio, has established a new branch office at 202 Walnut street, Philadelphia, Pa.

The Vacuum Cleaner Co.

The Vacuum Cleaner Co. of New York announces a change of location for its business offices. These offices have been removed from Trinity Place to 47 Fifth avenue, New York city, where future correspondence should be addressed and inquirers can call.

Clark & Co., General Contractors.

Messrs. Clark & Co. of Richlands, Va., are general contractors, who make a specialty of brick and stone work. They have been busily occupied lately with good contracts, but are in a position to undertake additional work. Mr. A. E. Clark is manager of the firm.

Device for Protecting Trunks.

Manufacturers may be interested in a new device for protecting trunks from damage by opening or severe handling. The device is intended to bind all parts equally and is adjustable to any trunk. The invention is offered for sale by W. A. Mason of Clinton, Ky.

Southern Timber Offered.

Buyers of Southern timber land can obtain data of new properties for sale by addressing the Perry Lumber Co., Salisbury, Md. This company offers 600 acres of pine stumpage in Alabama and a tract said to contain 3,000,000 feet in North Carolina. Full details will be forwarded to inquirers acting in good faith.

Waverly, Va.

The council of the town of Waverly, Va., has appointed a committee to investigate the feasibility of advertising the advantages offered by Waverly as a location for the establishment of business enterprises. This committee will also plan the organization of a board of trade. Mr. H. P. Wilder can give information.

Gold-Mining Property.

For those who are considering an investment in gold-mining property it will be interesting to note an announcement offering for sale a tract of 270 acres. This tract contains a mine which is said to be shafted, timbered and tunneled ready for the installation of plant, and is located about 14 hours from Washington, D. C. The property is improved by dwellings, barns, etc., and contains

some large timber and an orchard. For further particulars address P. O. Box 207, Morganton, N. C.

Lumber Business for Sale.

An established planing mill and retail lumber business in the South in a good location is offered for sale. It is claimed that an experienced man with some capital could readily interest investors to assist in purchasing the property. Prompt correspondence is required. Address M. I. T., care of the Manufacturers' Record.

Contract for Special Designs.

Mr. W. K. Palmer, consulting engineer, 718 Dwight Building, Kansas City, Mo., has secured a contract through his Memphis (Tenn.) office, 52 Porter Building, for designing some special machinery for R. J. Darnell, Inc., of Memphis. Drawings and specifications are in course of construction in the Kansas City office.

Southern Engine and Boiler Works.

The Southern Engine and Boiler Works of Jackson, Tenn., has increased its capital stock from \$200,000 to \$300,000. This company is one of the best known of its character in the South, and has an extensive plant, buildings and equipment, which cost \$223,000, for manufacturing engines, boilers and saw-mill machinery. It is not proposed to make any immediate enlargements, but the new capital will assist in taking care of the company's increasing business.

"Post" Vitrified Sewer Pipe.

Information has been received that the Post Pipe Co. of Texarkana, Texas, is making more rapid progress on the construction of its plant than was at first expected, and will be in a position to ship product in May. This company is under the management of the Blackmer & Post Pipe Co. of St. Louis, Mo., and the Texas plant will cost about \$110,000. Its product to be various vitrified-clay articles as well as sewer pipe. Full details of the plant were previously given in the Manufacturers' Record.

New Concrete Construction Company.

The popularity of concrete construction is becoming more pronounced in every part of the country, and to meet the requirements in this class of construction work concrete construction companies have multiplied. Among others recently organized is the Reid-Turnbull Construction Co., 1206 Pennsylvania Building, Philadelphia, Pa., which has a paid-up capital stock of \$75,000 and has applied for charter of incorporation. The company has received notice that its charter will be granted on the 12th instant.

Change of Name.

The C. H. Wheeler Condenser & Pump Co. of Philadelphia, Pa., announces the change of its corporate name to the C. H. Wheeler Manufacturing Co. This firm maintains its main office and plant at Lehigh avenue and 18th street, Philadelphia, and has branch offices at 25 Cortlandt street, New York; 151 Fremont street, San Francisco, and 184 Washington street, Chicago. It manufactures the Wheeler-Mullan high-vacuum apparatus consisting of the C. H. Wheeler Improved Surface Condenser with the Mullan Suction Valveless Air Pump.

St. Louis Rail & Equipment Co.

The St. Louis (Mo.) Rail & Equipment Co. has just purchased in East St. Louis a tract of 14 acres on the south side of the Railway Steel Spring Co.'s plant and fronting 1500 feet on the Terminal Railroad. It intends to immediately start improving this property, putting in a large storage-yard and a locomotive-repair plant. The present car shop in St. Louis will also be continued. The property is now being surveyed. When completed this will be one of the largest and best-equipped yards in the Southwest, and enable the company to conduct a much more extensive business.

Inviting Establishment of Bleachery.

So brisk is the demand for the establishment of different industrial enterprises in certain localities in the South that in many instances promoters have overlooked the advantages offered. At this time the Chamber of Commerce of Fayetteville, N. C., F. R. Rose, secretary, is interested in securing the establishment of a bleachery, and recites that Fayetteville offers peculiar advantages for an enterprise of this kind. The city is growing, and is situated at the head of navigation on the Cape Fear river, which secures for it an exceptionally low freight rate. Mr. Rose will furnish any information desired.

News from Myers & Bro.

It is pleasant to note that the recent destruction by fire of Messrs. F. E. Myers &

Bro.'s shipping warehouse and a large amount of finished goods has not caused any delay in filling the firm's orders. Their January and February shipments were larger than for the same months in 1905, and the business at present on file is the largest the company has ever had. The increased capacity of the plant at Ashland, Ohio, by the addition of a large new machine shop, nearly one-half larger capacity to the foundry and all-night operations have enabled Myers & Bro. to ship force and lift pumps, hay tools, etc., promptly.

Shipyards for Sale.

Legal announcement is being given that the receivers of the Baltimore Shipbuilding & Dry-Dock Co. will offer for sale on March 17 the portable tools, machines, appliances, office furniture, stock of fittings and materials, contracts in course of completion, etc. This sale will be held by order of court and is subject to certain bond issues. A schedule of the property can be seen at the offices of the company or the offices of Archibald H. Taylor, one of the receivers, 900 Maryland Trust Building, Baltimore, Md. Full information can be obtained by writing Messrs. Archibald H. Taylor and Walter Acker, the receivers, in care of the company.

Mineral-Land Sale.

An opportunity for investment in mineral lands and rights is presented in the announcement of Messrs. L. D. Lewis and John H. Christian, commissioners, of Lynchburg, Va., who will sell at Troutville, Botetourt county, Virginia, on March 29 a tract of 175 acres of mineral lands, together with the mineral rights on 154 acres. The ore on the property is said to be of a very high grade of hematite, running from 48 to 50 per cent, metallic iron, low in phosphorus and manganese, and easily reduced. The mines are located one mile from Troutville and 12 miles from Roanoke. Their proximity to several iron furnaces should make the property especially desirable.

Electric Power for Industrial Establishments.

The extended use to which electric power has been put in mills and factories has given the consulting engineer an opportunity to specialize on this class of work. Mr. George W. Fowler, consulting electrical engineer, 136 Liberty street, New York, is devoting his attention to the application of electric power to industrial and manufacturing enterprises, preparing plans and specifications for the complete equipment which is required in these establishments and other electric-power-transmission plants. He has had an extended experience in the electric-power field, and is prepared to undertake satisfactory installations of this character.

Turbo-Generator for Memphis.

Following the lead of progressive central stations in all parts of the country toward the use of the steam turbine as the prime mover best adapted for electric-lighting and power purposes, the Memphis (Tenn.) Consolidated Gas & Electric Co. has recently purchased a 1500-kilowatt Allis-Chalmers turbo-generator unit with condensing and auxiliary apparatus. The new unit is of the horizontal parallel-flow type, designed to operate at a speed of 1800 R. P. M. and generate a current at 60 cycles, three phases, of 2500 volts, the jet condenser and auxiliary pump to be furnished and also built by the Allis-Chalmers Company of Milwaukee. This unit will run in parallel with other units of similar type or with a reciprocating-engine unit built for parallel operation, properly dividing the load so as to prevent surging.

Big Rock-Crushing Plant.

The Power & Mining Machinery Co. of Cudahy, Wis. (suburb of Milwaukee), has closed contract for rock-crushing plant for the Little Falls (N. Y.) Stone Co., H. A. Shaper, general manager. This plant will embody all of the latest ideas in modern crushing practice, and will be built throughout in accordance with designs made by the Power & Mining Machinery Co. One feature will be of more than usual interest. It is the enormous size of the main crusher, a No. 10 McCully, the largest machine of its kind ever designed or built. To form a conception of the immense size of this crusher it is only necessary to state that its weight will be nearly 200,000 pounds, and its capacity, under favorable conditions, 700 tons of crushed stone per hour, or 7000 tons every working day of 10 hours. Among the principal auxiliary machinery to be installed in this plant may be mentioned four No. 6 McCully crushers for crushing the rejections from the No. 10 crusher, one No. 10 elevator 60 feet long, one No. 9 elevator 67 feet long, two 60-inch by 15-foot rejection screens, and two 60-inch by

35-foot sizing screens of special design. The product from this plant will be used for ballast, railroad and concrete work. All of the dust or fine material accruing from the crushing of the stone is to be used for making cement bricks in a nearby plant owned and operated by the Little Falls Company.

Regarding Improved Charging Barrows.

Wheelbarrows are required in many kinds of industrial activity. They are in demand among railroad companies, contractors, mining corporations and various other active operators. This fact prompted one well-known manufacturer to perfect a steel wheelbarrow which has factors of efficiency that have resulted in the improved barrows being largely purchased. The Archer Iron Works of 39 La Salle street, Chicago, is the manufacturer mentioned. This company manufactures the Archer charging barrows of the best obtainable steel, besides coal and ore cars, oil-bearing car wheels, and other similar products. It has found by experience that its barrows are meeting an urgent need, and as indicative of the merits of the Archer product may be mentioned the fact that those who purchase once usually send repeat orders if they have any need for additional wheelbarrows. One instance of this is a railway company which sent five repeat orders, aggregating 91 steel charging barrows for coaling locomotives, within five months. Purchasers will find they are serving their own interests by writing the Archer Iron Works before placing contracts for wheelbarrows and other kindred supplies.

New South Brick Machinery Plant.

During the past year many brick plants, large and small, have been established in the South. While many brick-machine builders of the North and East have assisted in furnishing the equipments needed for those plants, yet Southern manufacturers have been well represented. The Southern manufacturers include Messrs. J. C. Steele & Sons of Statesville, N. C., who manufacture the New South brick machinery. Their plant has been established 15 years, and they offer a full line of machines up to 100,000 daily capacity, including practically all of the auxiliary machinery used in any size plant. Their facilities have recently been considerably increased, and orders for three large outfitts, which will keep them busy for several months, have been received. Last year the firm employed about 60 men on full time, and will probably increase that number this year.

Modern Steel Lockers.

Employers who are cognizant of the fact that their employees are better qualified to execute their duties by reason of comfort and sanitary arrangements are not slow to recognize the merits of any appliance that will conduce to these conditions. Very often it is necessary for workmen to divest themselves of one set of clothing and don another in the routine of their work, and when this is the case it is desirable, not to say important, that they be provided with a secure and convenient locker in which to keep the clothing not in use. The expanded metal locker manufactured by Merritt & Co., 1024 Ridge avenue, Philadelphia, should appeal to those who are interested in the use of lockers.

They are not confined to the use indicated above, but may be used in numerous ways with equal facility. In construction they are of steel throughout and can be erected in any grouping required, and where desired solid sheet steel may be substituted for the expanded metal panels and doors. Erected on the unit principle, every piece fits easily and tightly and can be removed without trouble or damage to the locker. Attesting the popularity with which the lockers of Merritt & Co. have been received is the fact that during last year 65,000 were sold to steam and electric roads, machine tool manufacturers, general machine shops and electrical manufacturers, mining and construction companies, clubs, gymnasiums, banks and other financial institutions, department stores, etc.

The Lowell Crayon Co.

Because of certain imitations of its products and infringements on its trade-marks, the Lowell Crayon Co. of Lowell, Mass., is sending out a formal announcement of legal action it has taken. The company's letter, dated February 23, is as follows: "As a matter of interest to us as manufacturers, and which we think will be of equal interest to you as consumers, we take the liberty to call your attention to a decree of the Massachusetts Superior Court, entered after a hearing had in Boston upon February 21st inst. between this company as plaintiff and the Howe Lowell Crayon Co. as defendant, viz.: It is hereby ordered, adjudged and decreed

as follows: That the defendant, Howe Lowell Crayon Co., its officers, servants, agents and attorneys, be and they hereby are enjoined from using in any way, by card or label or stamping, stenciling or marking, or otherwise, upon their packages of manufactures for the trade, or in advertising the same in any way to the public, the combined words 'Lowell Crayon' or 'Lowell Crayons,' whether in combination with any other words or otherwise, until the further order of the court." As it is our purpose to protect our line of manufactures and our business for the benefit of our customers as well as our own, we should regard it as a favor to us if you would kindly advise us immediately of any instance coming to your knowledge hereafter of violations by the above-named defendant of the terms of the foregoing decree of the court."

Two-Piece Dry Walls.

When one considers that the combined production of building materials probably stands first on the list of great industries, one is likely to realize the vast importance of concrete-stone making. The economy, permanency and practicability of concrete stamp it as one of the classes of materials for construction purposes which will always be in demand. It has only been within comparatively recent years that concrete stones have been used in building construction, and an important industry has thus been established. One of the well-known inventors of machines for making concrete stones advocates the principle that the cementitious properties of Portland cement are vastly superior in endurance to that element in nature which holds the atoms together in natural stone. This, he claims, accounts for the wonderful durability of the manufactured product. The same inventor is an ardent advocate of the two-piece stone machine and the two-piece dry wall, which he believes to be infinitely superior to other methods. In emphasizing the desirability of the two-piece system and pointing out that its popularity is steadily growing, he says that the leading makers of one-piece machines are altering their designs so as to make the two-piece block. Besides the knowledge gained from practical experience, this inventor made many experiments before arriving at his final conclusions. Mr. E. M. Walton of Kansas City, Mo., is the inventor referred to, and he presents in a pamphlet a full exposition of his machine, its features and his claims why manufacturers of stone and contractors for buildings should agree with his ideas. He has been very successful in introducing his system throughout the country, and finds that the more particulars people obtain about it the greater is the demand for the machine and the construction system which it makes possible. Mr. Walton is president of the Walton Stone Machine Co., 18th street and Wabash avenue, Kansas City. People who contemplate engaging in the building-stone industry and those already interested in it who want to keep fully informed regarding the latest improvements designed for their benefit are invited to write to Mr. Walton.

New Rotary Engine.

During the present week there has been placed on exhibition at Madison Square Garden in New York a rotary steam engine suitable for propelling boats, automobiles and furnishing power for electric-lighting plants. It is of the cut-off full-expansion type, and embodies all the features of the Corliss, together with the desirable rotary motion. Steam is furnished by a generator having an oil burner, using either kerosene or crude oil. This new rotary engine is the invention of A. D. Wright of Corona, L. I. John Wilson, a consulting engineer and formerly engineer in the United States navy, in speaking of Mr. Wright's engine, the first model of which was only completed on Sunday evening, and which is shown for the first time in Madison Square Garden, said: "I believe there is no doubt that Mr. Wright has invented the only practical rotary engine to date. It embodies all the admirable advantages of the best-known reciprocating engines of today. Among the advantages claimed for it are the following: The cost of construction will be about one-half less than the present machines; the economy of steam by his system of cut-off and expansion is in every particular equal to the Corliss engine, and its speed can be varied from 50 to 350 revolutions a minute; it is reversible, and its adaption for all kinds of boats will fill a long-felt want, as it can be connected direct to the propeller shaft, and for generating electricity it will be adopted for the same reason. Its construction is simple and powerful. Owing to its direct connection it can be readily adapted to run by gas, so frequently used on automobiles and stationary engines. It avoids gearing up and belts, and its floor space will not exceed one-third of the present engines. A new feature of this

engine is it can be made in any size necessary from one-eighth to many thousands of horse-power. I must say Mr. Wright has shown in its construction power, economy and simplicity."

TRADE LITERATURE.

On Rock-Crushing Plants.

The Power & Mining Machinery Co., Cudahy, Wis. (suburb of Milwaukee), will shortly have off the press the following publication: "Catalogue No. 4, Rock-Crushing Plants." This is the second edition of the company's Catalogue No. 4. All of the data contained in the first edition has been thoroughly revised to conform with the latest and best engineering practice. This catalogue will contain 72 pages, fully illustrated, and will be sent upon request to those interested in modern crushing plants and equipments.

A System of Engines.

Anyone who is interested in steam engines for power purposes will be lacking in complete information regarding mechanical equipments of this character if he fails to become acquainted with the data presented in "A System of Engines." This book is a complete illustrated catalogue of the engines and products of the Harrisburg Foundry and Machine Works of Harrisburg, Pa. It is the company's book for 1906, and designates the engines as "Fleming engines" and other power factors, which have become well known wherever steam power is used as "Harrisburg engines." This new and personal nomination of the company's product is given so that any confusion in identity may be prevented in future, and because the name Fleming, for so many years identified with the better class of engineering practice, and determined only upon the policy of producing machinery of honest and progressive manufacture, renders to the public a personal claim for and expectation of honorable dealing. It need not be said that these engines are of the highest grade as to material and workmanship and as to economical and efficient results obtained by their use. Many purchasers of power equipment know these factors, and new buyers in the field are continually becoming acquainted with them. The new catalogue is a fine specimen of the printer's art both in letter-press and photographic illustrations. Mr. Wm. R. Fleming is president of the company.

The Iron and Metal Trades.

The Iron Age in its weekly review says: "So far as new business is concerned, in nearly all lines of crude and finished iron and steel the week has been a very dull one. As indicative of the situation, the statement may be made that the United States Steel Corporation is booking new business at the rate at which deliveries are being made, no business for very distant delivery being taken and orders being closely scrutinized to prevent speculative purchases. The volume of business may therefore be designated as normal in contrast with the extraordinary volume during the winter months."

In some branches the large consumers are being approached with the object of securing a renewal of contracts which expire on July 1. This is notably the case with makers of agricultural implements for their requirements of bars and merchant steel. The attitude of the buyers, however, is one of indifference when the present range of prices is being talked, because they are doing considerably better on the material which is now being delivered.

Reports from all the distributing centers show the pig-iron trade to be very dull. The Steel Corporation has purchased from \$000 to 10,000 tons of valley Bessemer. It is understood that the pig-iron stock of the Corporation is down to the very low figure of 133,000 tons of all kinds, or only a few days' supply.

Southern furnace interests have now taken little new business for a long time, and yet are holding firm. On the other hand, buyers are indifferent, and it is not quite clear what concessions would tempt them. There is little that is new in the cast-iron-pipe business. Fair contracts are being taken. The largest order on the market is for 10,000 tons for New Orleans."

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,
Baltimore, Md., March 7.

The Baltimore stock market has been rather quiet during the past week, about the only feature being some fractional movement in United Railways incomes, Cotton Duck 5s and Houston Oil stocks.

In the trading United Railways common sold at 17½ and 17¾; the trust certificates at 18½ and 18¾; the incomes from 73½ to 74½; the trust certificates from 71½ to 72½, and the 4s, ex-coupon, from 92½ to 92½. Consolidated Gas was dealt in at 89 and 88; the 6s at 106¾; the 5s at 112½ and 112½, and the 4½s at 100½. Seaboard new common sold at 29½ to 30½; Seaboard 4s from 90¾ to 90½, and 10-year 5s at 103½; Cotton Duck 5s, ex-coupon, from 85½ to 87½; Consolidated Cotton Duck common at 12 to 12½. G.-B.-S. Brewing common changed hands at 83½; the incomes at 32½ to 32½; the 1sts, ex-coupon, from 62 to 61½.

Bank stocks sold as follows: Farmers and Merchants', 55½; Maryland, 24; Mechanics', 26½ to 26; Second National, 191½; Commercial and Farmers', blue certificates, 145; German, 108 and 110; First National, 138½.

Trust and other company stocks sold as follows: Continental Trust, 198; Maryland Trust, common, 120 to 121½; do, preferred, 133; do, warrants, 125 to 19, relating to 21½; Union Trust, 53½; International Trust, 154½ to 154; Maryland Casualty, 56½; United States Fidelity, 133.

Other securities were traded in as follows: Northern Central Railway, 105 to 104½; Western Maryland Railroad, 19½; do, 4s, 88; Houston Oil common, 12½ to 11½; do, preferred, 50½ to 50; Anacostia & Potomac 5s, 107½ to 107; Baltimore, Sparrows Point & Chesapeake 4½s, 97½ to 97½; City & Suburban (Washington) 5s, 105½ to 106; Georgia, Carolina & Northern 5s, 111; Wilmington & Weldon 5s, 118½; Virginia Century, 95½; Virginia deferred, Brown Bros. certificates, 29½ to 29½; Baltimore Brick preferred, 55; do, 5s, 86½; Atlantic Coast Line 4s, 99½ to 99¾; do, Connecticut 5s, certificates, 114; do, 4s, certificates, 5-20s, 94; Citizens' Railway, Light & Power of Newport News 5s, 88½; Alabama Consolidated Coal & Iron preferred, 92½; do, 5s, 93½ to 93½; Southern Railway common, 38%; Knoxville Traction 5s, 108½ to 108½; Maryland & Pennsylvania 4s, 95; Baltimore Refrigerating & Heating 1st 5s, 79; Norfolk Railway & Light 5s, 100½ to 100½; Baltimore City 4s, 1925, W. M., 107½; Coal & Iron Railway 5s, 105; Florida Southern 4s, 99; Georgia & Alabama Consolidated 5s, 111; Petersburg A, 113%; North Carolina 4s, 102½ to 102; Baltimore City 5s, 1916, W. L., 114; North Baltimore 5s, 120; Stewartstown Railroad stock, 30; City & Suburban (Washington) stock, 19.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended March 7, 1906.

Railroad Stocks.	Par.	Bid.	Asked.
Atlanta & Charlotte.....	100	175	175
Atlantic Coast Line of Conn.	100	415	430
Georgia Southern & Florida.....	100	25	25
Georgia Sou. & Fla. 2d Pref.	100	75	75
Maryland & Pennsylvania.....	100	27½	28
Seaboard Railway Common.....	100	30	32
Seaboard Company Common.....	100	29½	29½
Seaboard Railway Preferred.....	100	50	50
Seaboard Company 2d Pref.	100	59½	60

Bank Stocks.

Citizens' National Bank.....	10	28	28½
Commercial & Far. Nat. Bank.....	100	130	140

Com. & Far. Nat. Bk., Blue Cfs.	100	140	150
Drovers & Mech. Nat. Bank....	100	240	240
Farmers & Mer. Nat. Bank....	40	50	56
First National Bank.....	100	142½	138
German-American Bank.....	100	108	108
German Bank.....	100	110	110
Maryland National Bank.....	20	23	24
Merchants' National Bank.....	100	175	185
National Bank of Baltimore.....	100	119	120
National Bank of Commerce.....	15	24	24
National Exchange Bank.....	100	180	180
National Howard Bank.....	10	11½	12
National Marine Bank.....	30	37	37
National Mechanics' Bank.....	10	25½	25½
National Union Bank of Md.	100	118	120
Second National Bank.....	100	185	185
Third National Bank.....	100	115	115
Western National Bank.....	20	37	37

Trust, Fidelity and Casualty Stocks.

American Bonding & Trust.....	50	50	50
Baltimore Trust & Guaranty.....	100	315	335
Continental Trust.....	100	199	199
International Trust.....	100	154	155
Maryland Casualty.....	25	56½	57
Maryland Trust.....	100	121	121½
Maryland Trust Pref.	100	130	133½
Mercantile Trust & Deposit.	50	142	145
Safe Deposit & Trust.....	100	450	450
Union Trust.....	50	54½	55
U. S. Fidelity & Guaranty.....	100	130	135

Miscellaneous Stocks.

Alabama Con. Coal & Iron.....	100	70	70
Ala. Con. Coal & Iron Pref.	100	92½	93½
Consolidated Gas.....	100	86½	88½
Consolidation Coal.....	100	89	95
Consolidated Cotton Duck Com.	100	12½	15
Consolidated Cotton Duck Pfd.	100	35	38
G. B. & S. Brewing Co.	100	8½	8½

Railroad Bonds.

Atlanta & Charlotte 1st 7s, 1907....	100	100	100
Atlan. Coast Line 1st Con. 4s, 1962....	100	99½	100
Georgia, Car. & North 1st 5s, 1929....	100	111	111
Georgia South. & Fla. 1st 5s, 1945....	100	113½	114½
Maryland & Pennsylvania 4s, 1951....	100	94½	95½
Petersburg, Class A 5s, 1926....	100	116	116
Petersburg, Class B 6s, 1926....	100	133	133
Piedmont & Cum. 1st 5s, 1911....	100	105	105
Potomac Valley 1st 5s, 1941....	100	118	118
Raleigh & Augusta 1st 6s, 1926....	100	127	127
Richmond & Danville Gold 6s, 1915....	100	112½	113½
Savannah, Fla. & West 5s, 1934....	100	117½	119
Seaboard Air Line 4s, 1950....	100	91	91
Seaboard Air Line 5s, 10-year, 1911....	100	103½	103½
Seaboard Air Line 5s, 3-year....	100	99½	100
Suffolk & Carolina 5s, 1952....	100	95	98
Virginia Midland 3d 6s, 1916....	100	113½	118
Western Maryland new 4s, 1952....	100	87½	88
West. North Carolina Con. 6s, 1914....	100	114	114
West Virginia Central 1st 6s, 1911....	100	108½	110
Wilmington, Col. & Aug. 6s, 1910....	100	119	119
Wilmington & Wel. Gold 5s, 1935....	100	118½	118½

Street Railway Bonds.

Anacostia & Potomac 5s, 1949....	100	107	107
Atlanta Con. St. Rwy. 5s.....	100	105½	105½
Baltimore City Passenger 5s, 1911....	100	108	108
Central Ry. Con. 5s (Balto.)....	100	106½	106½
Central Ry. Ext. 5s (Balto.)....	100	115	115
Charleston City Railway 5s, 1925....	100	103½	103½
City & Suburban 5s (Balto.)....	100	113	113
Knoxville Traction 1st 5s, 1928....	100	108	108
Lexington Railway 1st 5s, 1928....	100	109	109
Macon Rwy. & Lt. 1st Con. 5s, 1953....	100	100	100
Metropolitan 5s (Wash.)....	100	115	116
Norfolk Railway & Light 5s....	100	100½	100½
Norfolk Street Railway 5s, 1944....	100	110½	110½
North Baltimore 5s, 1912....	100	120	120
United Railways 1st 5s, 1949....	100	92½	92½
United Railways Inc. 4s, 1949....	100	74½	74½

Miscellaneous Bonds.

Alabama Consol. Coal & Iron 5s....	93½	94	94
Consolidated Gas 6s, 1910....	100	106½	106½
Consolidated Gas 5s, 1929....	100	12½	12½
G. B. & S. Brewing 1st 3-4s....	61	61½	61½
G. B. & S. Brewing 2d Incomes....	32½	32½	32½
Georgia Telephone 5s, 1912....	100	97½	97½
Mt. V. & Woodbury Cot. Duck 5s....	87	87½	87½
Mt. V. & Woodbury Cot. Duck Inc.	37	43	43
United Elec. Light & Power 4½s....	96	100	100

United Railways Bonds.

Alabama Cotton Mills (S. C.)....	96	98	98
Aiken Mfg. Co. (S. C.)....	84	91	91
Anderson Cotton Mills (S. C.)....	104	106	106
Arkwright Mills (S. C.)....	119	123	123
Augusta Factory (Ga.)....	79	85	85
Avondale Mills (Ala.)....	98	100	100
Belton Mills (S. C.)....	110	113	113
Bibb Mfg. Co. (Ga.)....	102	122	122
Brandon Mills (S. C.)....	102	107	107

report of the mayor, D. A. Yeiser, says that a large amount of work has been done in reconstructing and improving the streets, in addition to building new streets that are now being built out of the proceeds of the bond issue of \$150,000. Out of the balance in bank noted in the treasurer's report the sum of \$78,725.10 is credited to the street bond account on January 1, 1906, for continuing the work. The mayor suggests that it may be advisable to install a municipal lighting plant for illuminating the City Hall and other public buildings. He also suggests that it might be advantageous for the city to build its own water plant. In addition to this, he advises the extension of the sewerage system and recommends the erection of another market-house and also the purchase of another steam fire engine for the southern section of the city. He notes that the city is, furthermore, in a satisfactory financial condition.

The Art of Wall-Street Investing.

This is a practical handbook for investors and others, which treats the subject of Wall-Street investments in a simple, clear style. It is also attractive, and is particularly useful and valuable because of the entertaining manner in which the various methods and phases of the New York stock market are explained. It is made up of 10 chapters, covering such subjects as bonds and what they represent, stocks and what they are, rules for analyzing railroad securities, explanation of syndicates and reorganizations, the difference between investment and speculation, methods for ascertaining security and safety, and a vivid description of the New York Stock Exchange and its works. Besides, a chapter is given to the explanation of Wall-Street terms and phrases. Doubtless the book will have a wide sale and many appreciative readers. The author is John Moody. It is beautifully bound in red cloth and handsomely printed. The price per copy is \$1, or by mail \$1.10. It is published by the Moody Corporation, 35 Nassau street, New York city.

Bank Reports.

The East Florida Savings & Trust Co. of Palatka, Fla., reports December 30, 1905, loans and discounts, \$276,085; due from banks and bankers, \$113,569; cash, \$28,588; capital stock, \$20,000; surplus, \$55,000; undivided profits, \$10,595; deposits, \$475,723; total resources, \$561,398. The officers are E. S. Crill, president; W. H. Cook, first vice-president, and W. S. Burdette, secretary.

The Citizens' Bank of Henderson, N. C., reports at close of business January 29, 1906, loans and discounts, \$441,830; cash on hand and due from banks, \$48,401; capital stock paid in, \$100,000; surplus and profits, \$35,645; deposits, \$384,937; due to banks, \$13,354; cashier checks outstanding, \$742; total resources, \$834,723. The officers are J. B. Owen, president; A. C. Zollicoffer, vice-president, and M. A. Hunt, cashier.

Banks in North Carolina.

The report of the North Carolina Corporation Commission for 1905 shows that there are 236 State, private and savings banks, a gain of 44 over the previous year. The resources are \$41,095,539, an increase of \$9,491,356. There was an increase in capital stock of \$721,311. The loans and discounts for the year were \$25,278,000, a gain of \$4,518,696. There are 50 national banks in the State, with \$3,975,000 capital. Five of these were organized during the year with a combined capital of \$475,000. The resources of the national banks increased over \$5,000,000 during the year.

The Palmetto Trust Co. of Columbia, S. C., has been chartered with \$50,000 cap-

ital. The incorporators are Willie Jones, W. T. Aycock and J. P. Matthews.

New Corporations.

It is reported that a new bank is to be established at Carnesville, Ga., with \$25,000 capital.

The Kirksville Loan & Trust Co. has been organized at Kirksville, Mo., with \$100,000 capital.

The Garrard Bank & Trust Co. is reported being organized at Lancaster Ky., with \$50,000 capital.

The People's Bank & Trust Co. of Ryan, I. T., has begun business with M. H. Barrett, president, and H. V. Bird, cashier.

The Chickasha National Bank has been organized at Chickasha I. T., with \$100,000 capital. T. H. Dwyer is president.

The Citizens' Bank & Savings Co. of Russellville, Ala., capital \$25,000, has been incorporated by C. E. Wilson and others.

The People's Life Insurance Co., with principal office at Galveston, Texas, is being organized with \$250,000 capital by A. Silvers.

The People's Bank of Bassfield, Miss., capital \$30,000, has been approved. The incorporators are V. R. McDonald, I. M. Applewhite and others.

The new bank at Silver Spring, Md., is to be known as the First National Bank of Silver Spring. Samuel D. Waters and others are the promoters.

It is reported that a new bank is being organized at New Ulm, Texas, by Mr. Mathaei of Bellville and Messrs. Thompson and Tillotson of Sealy.

The Standard Banking & Trust Co. of Tulsa, I. T., capital \$100,000, has begun business with Grant C. Stebbins as president and Edward McCoy, cashier.

The Security Bank & Trust Co. of Vicksburg, Miss., capital \$25,000, has been approved. The incorporators are W. C. Sharp, W. J. Voller, M. L. Sharp and others.

The Citizens' Trust & Savings Co. is being organized at Asheville, N. C., with \$50,000 capital, among the promoters being J. S. K. Ray, E. L. Ray and J. A. Campbell.

The Southern Securities Co. of Atlanta, Ga., capital \$150,000, has made application for a charter. The incorporators are Wilmer L. Moore, Frank Orme and P. C. Wadsworth.

The Stanton National Bank has organized at Stanton, Texas, with \$25,000 capital. The officers are J. V. Stokes, president; F. O. Aiken, vice-president; E. F. Elkin, cashier.

Isaac Griffith of Maypearl, S. M. Dunlap, K. G. Stroud of Italy, T. A. Ferris and O. E. Dunlap of Waxahachie are the incorporators of the Citizens' State Bank of Maypearl, Texas.

The Co-operative Realty & Investment Co., reported organized in the last issue of the MANUFACTURERS' RECORD, is located at Memphis, Tenn. George H. Bachelor is president.

The Bank of Robersonville at Robersonville, N. C., capital \$15,000, has been granted a charter. The incorporators are J. C. Robertson, J. H. Roberson, Jr., A. S. Roberson and others.

The Union Trust Co. of Birmingham, Ala., has been incorporated with \$50,000 capital. The directors are Ben F. Johnson, president; J. R. Beavers, secretary and treasurer, and J. T. Stokely.

The First National Bank of Frederick, O. T., capital \$25,000, has been approved. The organizers are Frank T. Blair, Lawton, O. T.; J. L. Hamon, C. L. Blair, F. Broadwell and Chas. Mitschrich.

The Frederick National Bank of Frederick, O. T., has been approved; capital \$25,000. The incorporators are W. E. Weathers, D. B. Pearson, Guy S. Weathers, H. J. Cassie and Amil H. Japp.

The Farmers and Merchants' Bank of Loganville, Ga., has been granted a charter; capital \$25,000. The incorporators are E. R. Floyd, D. M. Hodges, W. H. Braswell & Son, all of Loganville, and others.

The First National Bank of Miami, Texas, has been approved; capital \$25,000. The organizers are D. J. Young, Canadian, Texas; Robt. Moody, Mary A. Young, Wm. S. Martin and Thos. F. Moody.

The Merchants' National Bank of Covington, Ky., capital \$100,000, has organized with Joseph J. Moser, president; Henry Holtrop and Bernard Eilerman, vice-presidents, and H. W. Percival, cashier.

The Montgomery Bank & Trust Co. of Montgomery, Ala., has opened for business with the following officers: W. E. Holloway, president; Meyer L. Griel, vice-president; F. H. Logan, cashier, and J. W. Kelly, secretary.

The Farmers and Merchants' Bank of Mulberry, Ark., capital \$25,000, will, it is said, soon begin business with the following officers: G. W. Wagner, president; J. M. O'Bar, vice-president, and S. B. Hawkins, cashier.

The East Point Bank of East Point, Ga., has been granted a charter; capital \$25,000. The incorporators are Garnett McMillian, J. M. Couch, R. F. Thompson, E. G. Little of East Point, and W. D. Manley of Atlanta.

The First National Bank of Santa Anna, Texas, capital \$25,000, has organized with the following officers: L. V. Stockard, president; A. G. Weaver, vice-president; V. L. Grady, cashier; B. Weaver, assistant cashier.

A bill has been introduced in the senate to incorporate the Chesapeake Bank of Baltimore, Md.; capital \$25,000. The incorporators are James H. McClellan, Jas. Brunst, H. B. Owens, F. B. Aiken, Alex. Stern and Thomas Wright.

The Bank Clerks' Investment Co. of Pine Bluff, Ark., capital \$100,000, has filed articles of incorporation. The incorporators are C. W. Pettigrew, Harry Hanf, E. H. Sloss, Charles A. Gordon, Irl Armstrong, R. F. Ezell and Dr. C. W. Dixon.

A new State bank has been organized at Burton, Texas, with \$10,000 capital. The directors are C. W. Homeyer, president and general manager; Thomas Watson, vice-president; S. N. Carneau, second vice-president; O. A. Schatz and Herman Knittel.

The officers of the Solvent Savings Bank & Trust Co., recently incorporated at Memphis, Tenn., are R. R. Church, president; M. L. Clay, vice-president; W. E. Mollison, second vice-president; J. W. Sanford, third vice-president; R. W. Eare, cashier, and J. T. Settle, attorney.

The People's Bank of Trezevant, Tenn., has elected the following officers: W. J. Hurdle, president; Jeff J. Blanks, cashier; Dr. R. M. Murray, vice-president, and Nevins Arnold, assistant cashier; directors, Drs. R. M. and Joe M. Murray, Isham G. Hurt, Joe Martin, O. C. Sloan, George Woods and W. J. Hurdle.

The First National Bank of Romney, W. Va., has organized with the following officers: John J. Cornwell, president; Dr. Geo. H. Thomas, vice-president, and Wm. Arnold, cashier; directors, D. A. Daugherty, B. B. Swisher, George S. Arnold, D. M. Dicken, Dr. Geo. H. Thomas, John J. Cornwell, R. J. Ruckman, T. F. Henderson and William Arnold.

The Keystone Life Insurance Co. of New Orleans, La., is being organized at New Orleans, La., with \$100,000 capital. Among the directors are Capt. L. P. Delahoussaye, Adam Wagatha, vice-president and cashier Teutonia Bank & Trust Co.; Robert J. Maloney, Peter Gallagher, Chas.

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F. Buck, A. G. Ricks, president of the Metropolitan Bank; J. C. Drew and others.

The State Savings Bank of Hattiesburg, Miss., has been chartered with \$250,000 capital. The incorporators are J. P. Carter, president of the National Bank of Commerce; F. L. Peck, J. T. Jones of Gulfport, L. L. Major, John Kemper, J. S. Turner, W. M. Conner, D. C. McRaney, J. C. Carley, F. W. Foote, H. S. Stevens, W. C. Bennett, W. C. Hauenstein and C. J. Hauenstein.

[For Additional Financial News, See Pages 34 and 35.]

